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Fantasy AND

Science Fiction



SEPTEMBER

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ROBERT A. HEINLEIN

ROBERT BLOCH

JOHN COLLIER

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Have Space Suit—Will Travel

by ROBERT A. HEINLEIN

(Second of three parts)

You see, I had this space suit—

My name is Kip Russell. I was just finishing my senior year at Centerville High School. Dear old C.H.S. isn't much of a school—it's one of those King-size kindergartens they use for high schools these days. But my Dad is eccentric; he thinks that logarithms are more important than "Life Adjustment;" under his prodding I soaked up quite a bit of math and science anyhow, studying mostly at home. I was dead set on going into space and the way to do that is to get an engineering education.

Then Skyway Soap announced their big slogan contest, that one with the first prize an all-expense trip to the Moon.

I was just wild to win it. I sent in thousands of soap wrappers and slogans—much helped, I must add, by Dad and Mother and by Mr. Charton, my boss. I was the soda jerk at Charton's Drugs that spring, which gave me a chance to sell Skyway Soap and talk the customers out of the wrappers. The only customer

I missed on was "Ace" Quiggle, Centerville's outstanding useless citizen. Ace not only would not part with a soap wrapper; he repeatedly used the excuse of a chocolate malted milk to hang around my soda fountain, discourage sales, and make fun of the whole matter with witty remarks about "Commodore Russell, the Scourge of the Space Pirates" and like nonsense.

Somehow I kept my temper, sold soap, and sent in 5,782 slogans.

But I didn't win the trip to the Moon. I won an obsolete space suit.

But, shucks, I never really thought I would win—and it was a real space suit. I spent all that summer reconditioning it, refitting it with space-band radio, making it gas tight. Space suits are wonderful pieces of machinery; they make a hotrod look simple. I got so attached to this one that it acquired a personality for me; I called him "Oscar" and used to talk with him, the way you will with a dog, supplying both sides of the chatter.

But I couldn't keep Oscar. The contest rules permitted me to turn him in as salvage, for \$500—and I needed the cash for my first semester in engineering school. So the evening before the Labor Day weekend I was sadly taking a last walk with Oscar, in the pasture back of our house (pretending I was on Venus) when I heard a call for help on Oscar's space-band radio.

Then a space ship almost squashed me.

Another ship landed, two figures ran out of the first one, I lumbered after them when one of them screamed and fell. I stood over it, trying to figure out what it was (it wasn't human)—When something hit me in the spine.

I woke up locked in a room. Oscar was gone and present was an under-size, over-educated, smart-Aleck female brat. Her name was Patricia Wynant Reisfeld but she told me to call her "Peewee." According to her, she had been piloting the first space ship, was being chased by space pirates in the second; the pirates had captured us and we were now on our way to the Moon—in a flying saucer.

So I knew I was out of my head.

Unfortunately I was not. Every word of it was true. Two men, a fat one and a skinny one, hauled me in to see the boss pirate, after knocking me out with a ray that paralyzed me. One good look at my captor convinced me.

It was not just that he was ugly—although he was a bug-eyed monster so dreadful that a comic book would be ashamed to picture him... wormy tendrils at his mouth, four

snaky arms, eyes that scanned like radar and an eye in the back of his head. But it was not his looks—

This creature was *evil*.

You hear people say that "good" and "evil" are just relative matters. They hadn't seen this thing. Old Wormface was bad all the way through. His viciousness was an overpowering force that drained the will out of me. He quizzed me, squeezed out of me all that I knew that he was interested in, had Fats and Skinny dump me back in my cell.

I was ready to believe Peewee now. She told me what little she knew. She had been on the Moon as a tourist and had been kidnapped by Fats and Skinny, who had turned her over to Wormface. Wormface and his tribe were moving in on us, with an advance base on the Moon from which they scouted Earth. To them we were just animals—slaves or (possibly) food. While captive, Peewee had met the "Mother Thing," another sort of extra-terrestrial and as different from Wormface as is possible—but just as non-human. Peewee described the Mother Thing as a "cop" who was chasing Wormface but had been captured by him—which didn't explain much, but any enemy of Wormface was a friend of mine.

Peewee and the Mother Thing had escaped in a wormface ship, with Peewee at the controls and the Mother Thing coaching her. Peewee had been headed for Princeton, New Jersey, where her father was somebody important in the Institute for Advanced Studies—when she had been forced down in Centerville...

which was how my space suit and myself had got tangled in it.

All of which explained everything except how to get untangled.

The ship we were in landed on the Moon but Peewee and I were left locked up. We managed with brute force and a wad of bubble gum to get out of our cell. The ship was empty and I thought we could escape in it, since Peewee had flown one before—but no such luck; Wormface had taken with him an essential gadget (call it an “ignition key,” which it wasn’t).

But I cracked open a few more doors and found our space suits—“Oscar” and the tourist suit Peewee had had when she was kidnapped. We had a chance now.

Peewee found the Mother Thing, locked in another compartment. She turned out to be a cuddly little creature, no more human than a goldfish but utterly delightful. She talked in high birdlike songs which I found I could understand. Telepathy? Well, maybe—I don’t know. But I did know why she was the “Mother Thing”—she made you want to crawl into her lap for comfort. She was motherly.

Two space suits and three persons. I loosened the straps on Oscar, the Mother Thing climbed on me piggyback, Peewee helped me seal up and I helped her, I took two spare bottles of oxygen-helium mix which I found in the room used by the renegade humans, Fats and Skinny, and we started out, intending simply to walk to the nearest human settlement on the Moon—Tombaugh Observatory Station, forty miles away across a ridge of mountains.

It began almost as a picnic; it wound up as an endless nightmare of heat, bone-weariness, and not enough oxygen to breath. I had a bad time—but I had drinking water, sugar pills, pep pills, all where I could reach them in Oscar’s helmet. Poor little Peewee had nothing but courage and a very limited supply of oxygen; her tourist space suit had never been designed for serious work. Even its hose fittings weren’t standard and my clumsy attempts to jury-rig a way to get our spare air into her bottle wasted about half.

Peewee collapsed from sheer lack of air when we had Tombaugh Station straight ahead of us; I picked her up and stumbled on. I don’t know exactly what happened after that as I was sliding into the last stages of anoxia delerium myself. It seemed to me that we were in front of Tombaugh Station’s pressure lock. A pressurized crawler stopped beside us and I yelled for help.

Two men got out, a fat one and a skinny one. Skinny aimed something at me—and that was the last I knew.

VII

I don’t know if they took us all that weary way back in the crawler, or if Wormface sent a ship. I woke up being slapped and was inside, lying down. The skinny one was slapping me—the man the fat one called “Tim.” I tried to fight back and found that I couldn’t I was strapped into a straitjacket thing that held me as

snugly as a wrapped mummy.

Skinny grabbed my hair, jerked my head up, tried to put a big capsule into my mouth.

I tried to bite him.

He slapped me harder and offered me the capsule again. His expression didn't change—it stayed mean.

I heard: "Take it, boy," and turned my eyes. The fat one was on the other side. "Better swallow it," he said. "You got five bad days ahead."

I took it. Not because of the advice but because a hand held my nose and another popped the pill into my mouth when I gasped. Fatty held a cup of water for me to wash it down; I didn't resist that, I needed it.

Skinny stuck a hypodermic needle big enough for a horse into my shoulder. I told him what I thought of him, using words I hardly ever use. The skinny one could have been deaf; the fat one chuckled. I rolled my eyes at him. "You, too," I added weakly.

Fatty clucked reprovingly. "You ought to be glad we saved your life." He added, "Though it wasn't my idea, you strike me as a sorry item. *He* wanted you alive."

"Shaddap," Skinny said. "Strap his head."

"Let him break his neck. We better fix our own selves. *He* won't wait." But he started to obey.

Skinny glanced at his watch. "Four minutes."

The fat one hastily tightened a strap across my forehead, then both moved very fast, swallowing capsules, giving each other hypos. I watched as best I could.

I was back in the ship. The ceiling glowed the same way, the walls looked the same. It was the room the two men used; their beds were on each side and I was strapped to a soft couch between them.

Each hurriedly got on his bed, began zipping up a tight wrapping like a sleeping bag. Each strapped his head in place before completing the process. I was not interested in them. "Hey! What did you do with Peewee?"

The fat man chuckled. "Hear that, Tim? That's a good one."

"Shaddap."

"You—" I was about to sum up Fatty's character but my thoughts got fuzzy and my tongue was thick. Besides, I wanted to ask about the Mother Thing, too.

I did not get out another word. Suddenly I was incredibly heavy and the couch was rock-hard.

For a long, long time I wasn't awake nor truly asleep. At first I couldn't feel anything but that terrible weight, then I hurt all over and wanted to scream. I didn't have the strength for it.

Slowly the pain went away and I stopped feeling anything. I wasn't a body—just me, no attachments. I dreamed a lot and none

of it made sense; I seemed to be stuck in a comic book, the sort P.T.A. meetings pass resolutions against, and the baddies were way ahead no matter what I did.

Once the couch gave a twisting lurch and suddenly I had a body, one that was dizzy. After a few ages I realized vaguely that I had gone through a skew-flip turn-over. I had known, during lucid moments, that I was going somewhere, very fast, at terribly high acceleration. I decided solemnly that we must be halfway and tried to figure out how long two times eternity was. It kept coming out 85 cents plus sales tax; the cash register rang NO SALE and I would start over.

Fats was undoing my head strap. It stuck and skin came away. "Rise and shine, bub. Time's awastin'."

A croak was all I managed. The skinny one was unwrapping me. My legs sagged apart and hurt. "Get up!"

I tried and didn't make it. Skinny grabbed one of my legs and started to knead it.

I screamed.

"Here, lemme do that," said Fatty. "I used to be a trainer."

Fats did know something about it. I gasped when his thumbs dug into my calves and he stopped. "Too rough?" I couldn't answer. He went on massaging me and said almost jovially, "Five days

at eight gravities ain't no joy ride. But you'll be OK. Got the needle, Tim?"

The skinny one jabbed me in my left thigh. I hardly felt it. Fats pulled me to a sitting position and handed me a cup. I thought it was water; it wasn't and I choked and sprayed. Fats waited, then gave it to me again. "Drink some, this time." I did.

"OK, up on your feet. Vacation is over."

The floor swayed and I had to grab him until it stopped. "Where are we?" I said hoarsely.

Fats grinned, as if he knew an enormously funny joke. "Pluto, of course. Lovely place, Pluto. A summer resort."

"Shaddap. Get him moving."

"Shake it up, kid. You don't want to keep *him* waiting."

Pluto! It couldn't be; nobody could get that far. Why, they hadn't even attempted Jupiter's moons yet. Pluto was so much farther than—

My brain wasn't working. The experience just past had shaken me so badly that I couldn't accept the fact that the experience itself proved that I was wrong.

But Pluto!

I wasn't given time to wonder; we got into space suits. Although I hadn't known, Oscar was there, and I was so glad to see him that I forgot everything else. He hadn't been racked, just tossed on the floor. I bent down (dis-

covering charley horses in every muscle) and checked him. He didn't seem hurt.

"Get in it," Fats ordered. "Quit fiddlin'."

"All right," I answered almost cheerfully. Then I hesitated. "Say—I haven't any air."

"Take another look," said Fats. I looked. Charged oxy-helium bottles were on the backpack. "Although," he continued, "if we didn't have orders from *him*, I wouldn't give you a whiff of limburger. You made us for two bottles—and a rock hammer—and a line that cost four ninety-five, earthside. Sometime," he stated without rancor, "I'm gonna take it out of your hide."

"Shaddap," said Skinny. "Get going."

I spread Oscar open, wriggled in, clipped on the blood-color reader, and zipped the gaskets. Then I stood up, clamped my helmet, and felt better just to be inside. "Tight?"

("Tight!" Oscar agreed.)

"We're a long way from home."

("But we got air! Chin up, pal.")

Which reminded me to check the chin valve. Everything was working. My knife was gone and so were the hammer and line, but those were incidentals. We were tight.

I followed Skinny out with Fats behind me. We passed Wormface in the corridor—or a wormface—

but while I shuddered, I had Oscar around me and felt that he couldn't get at me. Another creature joined us in the air lock and I had to look twice to realize that it was a wormface in a space suit. The material was smooth and did not bulge the way ours did. It looked like a dead tree trunk with bare branches and heavy roots, but the supreme improvement was its "helmet"—a glassy smooth dome. One-way glass, I suppose; I couldn't see in. Cased that way, a wormface was grotesquely ridiculous rather than terrifying. But I stood no closer than I had to.

Pressure was dropping and I was busy wasting air to keep from swelling up. It reminded me of what I wanted most to know: what had happened to Peewee and the Mother Thing. So I keyed my radio and announced: "Radio check. Alfa, Bravo, Coca—"

"Shaddap that nonsense. We want you; we'll tell you."

The outer door opened and I had my first view of Pluto.

I don't know what I expected. Pluto is so far out that they can't get decent photographs even at Luna Observatory. I had read articles in the *Scientific American* and seen pictures in *LIFE*, bone-stelled to look like photographs, and remembered that it was approaching its summer—if "summer" is the word for warm enough to melt air. I recalled that because

they had announced that Pluto was showing an atmosphere as it got closer to the Sun.

But I had never been much interested in Pluto—too few facts and too much speculation, too far away and not desirable real estate. By comparison the Moon was a choice residential suburb. Professor Tombaugh (the one the station was named for) was working on a giant electronic telescope to photograph it, under a Guggenheim grant, but he had a special interest; he discovered Pluto years before I was born.

The first thing I noticed as the door was opening was *click . . . click . . . click*—and a fourth click, in my helmet, as Oscar's heating units all cut in.

The Sun was in front of me—I didn't realize what it was at first; it looked no bigger than Venus or Jupiter does from Earth (although much brighter). With no disc you could be sure of it, it looked like an electric arc.

Fats jabbed me in the ribs. "Snap out of your hop."

A drawbridge joined the door to an elevated roadway that led into the side of a mountain about two hundred yards away. The road was supported on spidery legs two or three feet high up to ten or twelve, depending on the lay of the land. The ground was covered with snow, glaringly white even under that pin-point Sun. Where the stilts were long-

est, about halfway, the viaduct crossed a brook.

What sort of "water" was that? Methane? What was the "snow"? Solid ammonia? I didn't have tables to tell me what was solid, what was liquid, and what was gas at whatever hellish cold Pluto enjoyed in the "summer." All I knew was that it got so cold in its winter that it didn't have any gas or liquid—just vacuum, like the Moon.

I was glad to hurry. A wind blew from our left and was not only freezing that side of me in spite of Oscar's best efforts, it made the footing hazardous—I decided it would be far safer to do that forced march on the Moon again than to fall into that "snow." Would a man struggle before he shattered himself and his suit, or would he die as he hit?

Adding to hazard of wind and no guard rail was traffic, space-suited wormfaces. They moved at twice our speed and shared the road the way a dog does a bone. Even Skinny resorted to fancy footwork and I had three narrow squeaks.

The way continued into a tunnel; ten feet inside a panel snapped out of the way as we got near it. Twenty feet beyond was another; it did the same and closed behind us. There were about two dozen panels, each behaving like a fast-acting gate valve, and the pressure was a little

higher after each. I couldn't see what operated them although it was light in the tunnel from glowing ceilings. Finally we passed through a heavy-duty air lock, but the pressure was already taken care of and its doors stood open. It led into a large room.

Wormface was inside. *The* Wormface, I think, because he spoke in English: "Comel" I heard it through my helmet. But I couldn't be sure it was he as there were others around and I would have less trouble telling wart hogs apart.

Wormface hurried away. He was now wearing a space suit and I was relieved when he turned because I could no longer see his squirming mouth, but it was only a slight improvement as it brought into sight his rear-view eye.

We were hard put to keep up. He led us down a corridor, to the right through another open double set of doors, and finally stopped suddenly just short of a hole in the floor about like a sewer manhole. "Undress it!" he commanded.

Fats and Skinny had their helmets open, so I knew it was safe, in one way. But in every other way I wanted to stay inside Oscar as long as Wormface was around.

Fats unclamped my helmet. "Out of that skin, bub. Snap it up!" Skinny loosened my belt and they quickly had the suit off even though I hindered.

Wormface waited. As soon as I was out of Oscar he pointed at the hole. "Down!"

I gulped. That hole looked as deep as a well and less inviting.

"Down," he repeated. "Now."

"Do it, bub," Fats advised. "Jump or be pushed. Get down that hole before he gets annoyed."

I tried to run.

Wormface was around me and chivying me back before I was well started. I slammed on the brakes and backed up—glanced behind just in time to turn a fall into a clumsy jump.

It was a long way to the bottom. Landing did not hurt the way it would have on Earth, but I turned an ankle. That didn't matter; I wasn't going anywhere; the hole in the ceiling was the only exit.

My cell was about twenty feet square. It was, I suppose, carved out of solid rock, although there was no way to tell as the walls and floor and ceiling were the same elephant hide used in the ship. A lighting panel covered half the ceiling and I could have read if I'd had anything to read. The only other detail was a jet of water that splashed out of a hole in the wall, landed in a depression the size of a washtub, and departed for parts unknown.

The place was warm, which was well as there was nothing resembling bed or bedclothes. I had already concluded that I

might be here quite a while and was wondering about eating and sleeping.

I decided I was tired of this nonsense. I had been minding my own business, out back of my own house. Everything else was Wormface's fault! I sat down on the floor and thought about slow ways to kill him.

I finally gave up that foolishness and wondered about Peewee and the Mother Thing. Were they here? Or were they dead somewhere between the mountains and Tombaugh Station? Thinking it over glumly, I decided that poor little Peewee was best off if she had never wakened from that second coma. I wasn't sure about the Mother Thing because I didn't know enough about her—but in Peewee's case I was sure.

Well, there was a certain appropriateness to the fix I was in; a knight errant usually lands in a dungeon at some point. But by rights, the maiden fair ought to be prisoned in a tower in the same castle. Sorry, Peewee; as a knight errant, I'm a good soda jerk. Or jerk. "His strength is as the strength of ten because his heart is pure."

It wasn't funny.

I got tired of punishing myself and looked to see what time it was—not that it mattered. But a prisoner is traditionally expected to scratch marks on the wall, tallying the days he's been in, so I

thought I might as well start. My watch was on my wrist but not running and I couldn't start it. Maybe eight g's was too much for it, even though it was supposed to be shockproof, waterproof, magnetism-proof, and immune to un-American influences.

After a while I lay down and went to sleep.

I was awakened by a clatter.

It was a ration can hitting the floor and the fall hadn't helped it, but the key was on it and I got it open—corned-beef hash and very good, too. I used the empty can to drink from—the water might be poisoned, but did I have a choice?—and then washed the can so that it wouldn't smell.

The water was warm. I took a bath.

I doubt if many American citizens during the past twenty years have ever needed a bath as much as I did. Then I washed my clothes. My shirt, shorts, and socks were wash-and-wear synthetics; my slacks were denim and took longer to dry, but I didn't mind; I just wished that I had one of the two hundred bars of Skyway Soap that were home on the floor of my closet. If I had known I was coming to Pluto, I would have fetched one.

Washing clothes caused me to take inventory. I had a handkerchief, 67 cents in change, a dollar bill so sweat-soaked and worn that it was hard to make out

Washington's picture, a mechanical pencil stamped "Jay's Drive-In—the thickest malts in town!" (a canard; *I* make the thickest) and a grocery list I should have taken care of for Mother but hadn't because of that silly air-conditioner. It wasn't as bedraggled as the dollar bill because it had been in my shirt pocket.

I lined up my assets and looked at them. They did not look like a collection that could be reworked into a miracle weapon with which I would blast my way out, steal a ship, teach myself to pilot it, and return triumphantly to warn the President and save the country. I rearranged them and they still didn't.

I was correct. They weren't.

I woke up from a terrible nightmare, remembered where I was, and wished I were back in the nightmare. I lay there feeling sorry for myself and presently tears started welling out of my eyes while my chin trembled. I had never been badgered "not to be a crybaby"; Dad says there is nothing wrong with tears: it's just that they are socially not acceptable—he says that in some cultures weeping is a social grace. But in Horace Mann Grammar School a crybaby was no asset; I gave it up years ago. Besides, it's exhausting and gets you nowhere. I shut off the rain and took stock.

My action list ran like this:

1. Escape from this cell.
2. Find Oscar, suit up.
3. Go outdoors, steal a ship, head home—if I could figure out how to gun it.
4. Figure out a weapon or stratagem to fight off the worm-faces or keep them busy while I sneak out and grab a ship. Nothing to it. Any superman capable of teleportation and other assorted psionic tricks could do it. Just be sure the plan is foolproof and that your insurance is paid up.
5. Crash priority: make sure, before bidding farewell to the romantic shores of exotic Pluto and its friendly colorful natives, that neither Peewee nor the Mother Thing is here—if they are, take them along—because, contrary to some opinions, it is better to be a dead hero than a live louse. Dying is messy and inconvenient but even a louse dies some day no matter what he will do to stay alive and he is forever having to explain his choice. The gummed-up spell that I had had at the hero business had shown that it was undesirable work, but the alternative was still less attractive.

The fact that Peewee knew how to gun those ships, or that the Mother Thing could coach me, did not figure. I can't prove that, but *I* know.

Footnote: After I learned to run

one of their ships, could I do so at eight gravities? That may simply call for arch supports for a wormface but I knew what eight g's did to me. Automatic pilot? If so, would it have directions on it, in English? (Don't be silly, Clifford!)

Subordinate footnote: How long would it take to get home at one gravity? The rest of the century? Or just long enough to starve to death?

6. Occupational therapy for the lulls when I go stale on the problems. This was important in order to avoid coming apart at the seams. O. Henry wrote stories in prison, St. Paul turned out his strongest epistles incarcerated in Rome, Hitler wrote *Mein Kampf* in jail—next time I would bring a typewriter and paper. This time I could work out magic squares and invent chess problems. Anything was better than feeling sorry for myself. Lions put up with zoos and wasn't I smarter than a lion? Some, anyhow?

And so to work—*One:* How to get out of this hole?

I came up with a straightforward answer: there wasn't any way. The cell was twenty feet on a side of a ceiling twelve feet high; the walls were as smooth as a baby's cheek and as impervious as a bill collector. The other features were the hole in the ceiling, which ran about six feet still higher, the stream of

water and its catch basin, and a glowing area in the ceiling. For tools I had the stuff previously listed (a few ounces of nothing much, nothing sharp, nor explosive, nor corrosive), my clothes, and an empty tin can.

I tested how high I could jump. Even a substitute guard needs springs in his legs—I touched the ceiling. That meant a gravity around one-half g—I hadn't been able to guess, as I had had an endless time under one-sixth gravity followed by a few eons at eight g's; my reflexes had been mistreated.

But, although I could touch the ceiling, I could neither walk on it nor levitate. I could get that high, but there was nothing a mouse could cling to.

Well, I could rip my clothes and braid a rope. Was there anything near the hole on which to catch it? All I could recall was smooth floor. But suppose it did catch? What next? Paddle around in my skin until Wormface spotted me and herded me back down, this time with no clothes? I decided to postpone the rope trick until I worked out that next step which would confound Wormface and his tribe.

I sighed and looked around. All that was left was that jet of water and the floor basin that caught it.

There is a story about two frogs trapped in a crock of cream. One sees how hopeless it is, gives up

and drowns. The other is too stupid to know he's licked; he keeps on paddling. In a few hours he has churned so much butter that it forms an island, on which he floats, cool and comfortable, until the milkmaid comes and chucks him out.

That water spilled in and ran out. Suppose it didn't run out?

I explored the bottom of the catch basin. The drain was large by our standards, but I thought I could plug it. Could I stay afloat while the room filled up, filled the hole above, and pushed me out the spout? Well, I could find out, I had a can.

The can looked like a pint and a "pint's a pound the world 'round" and a cubic foot of water weighs (on Earth) a little over 60 pounds. But I had to be sure. My feet are eleven inches long; they've been that size since I was ten—I took a lot of ribbing until I grew up to them. I marked eleven inches on the floor with two pennies. It turns out that a dollar bill is two and a half inches wide and a quarter is a smidgeon under an inch. Shortly I knew the dimensions of room and can pretty accurately.

I held the can under the stream, letting it fill and dumping it fast, while I ticked off cans of water on my left hand and counted seconds. Eventually I calculated how long it would take to fill the room. I did it over.

It would take fourteen hours to fill the room and the hole above, plus an hour to allow for crude methods. Could I stay afloat that long?

You're darn tootin' I could!—if I had to. And I had to. There isn't any limit to how long a man can float if he doesn't panic.

I balled my slacks and stuffed them in the drain. I almost lost them, so I wrapped them around the can and used the bundle as a cork. It stayed put and I used the rest of my clothes to caulk it. Then I waited, feeling cocky. Maybe the floor would create the diversion I needed for the rest of the caper. Slowly the basin filled.

The water got about an inch below floor level and stopped.

A pressure switch, I suppose. I should have known that creatures who could build eight-g, constant-boost ships would design plumbing to "fail-safe." I wish we could.

I recovered my clothes, all but one sock, and spread them to dry. I hoped the sock would foul a pump or something but I doubted it; they were good engineers.

I never really believed that story about the frogs.

Another can was tossed down—roast beef and soggy potatoes. It was filling but I began to long for peaches. The can was stenciled AVAILABLE FOR SUBSIDIZED RESALE ON LUNA which made it possible that Skinny and Fatty had come

by this food honestly. I wondered how they liked sharing their supplies? No doubt they did so only because Wormface had twisted their arms. Which made me wonder why Wormface wanted me alive? I was in favor of it but couldn't see why he was. I decided to call each can a "day" and let the empties be my calendar.

Which reminded me that I had not worked out how long it would take to get home on a one-g boost, if it turned out that I could not arrange automatic piloting at eight g's. I was stymied on getting out of the cell, I hadn't even nibbled at what I would do if I did get out (correction: *when* I got out), but I could work ballistics.

I didn't need books. I've met people, even in this day and age, who can't tell a star from a planet and who think of astronomical distances simply as "big." They remind me of those primitives who have just four numbers: one, two, three, and "many." But any tenderfoot Scout knows the basic facts and a fellow bitten by the space bug (such as myself) usually knows a number of figures.

"Mother very thoughtfully made a jelly sandwich under no protest." Could you forget that after saying it a few times? OK, lay it out so.

Thoughtfully	Terra	\$1.00
Made	Mars	\$1.50
A	Asteroids	
	(assorted prices, unimportant)	
Jelly	Jupiter	\$5.20
Sandwich	Saturn	\$9.50
Under	Uranus	\$19.00
No	Neptune	\$30.00
Protest	Pluto	\$39.50

The "prices" are distances from the Sun in astronomical units. An A.U. is the mean distance of Earth from Sun, 93,000,000 miles. It is easier to remember one figure that everybody knows and some little figures than it is to remember figures in millions and billions. I use dollar signs because a figure has more flavor if I think of it as money—which Dad considers deplorable. Some way you must remember them, or you don't know your own neighborhood.

Now we come to a joker. The list says that Pluto's distance is thirty-nine and a half times Earth's distance. But Pluto and Mercury have very eccentric orbits and Pluto's is a dilly; its distance varies almost *two billion* miles, more than the distance from the Sun to Uranus. Pluto creeps to the orbit of Neptune and a hair inside, then swings way out and stays there a couple of centuries—it makes only four round trips in a thousand years.

But I had seen that article about how Pluto was coming into

Mother	Mercury	\$0.39
Very	Venus	\$0.72

its "summer." So I knew it was close to the orbit of Neptune now, and would be, the rest of my life—my life expectancy in Center-ville; I didn't look like a preferred risk here. That gave an easy figure: 30 astronomical units.

Acceleration problems are simple: $s = \frac{1}{2}at^2$; distance equals half the acceleration times the square of elapsed time. If astrogation were that simple any sophomore could pilot a rocket ship—the complications come from gravitational fields and the fact that everything moves fourteen directions at once. But I could disregard gravitational fields and planetary motions; at the speeds a wormface ship makes neither factor matters until you are very close. I wanted a rough answer.

I missed my slipstick. Dad says that anyone who can't use a slide rule is a cultural illiterate and should not be allowed to vote. Mine is a beauty—a K&E 20" Log-log Duplex Decitrig. Dad surprised me with it after I mastered a ten-inch polophase. We ate potato soup that week—but Dad says you should always budget luxuries first. I knew where it was. Home on my desk.

No matter. I had figures, formula, pencil and paper.

First a check problem. Fats had said "Pluto," "five days," and eight gravities."

It's a two-piece problem: accelerate for half time (and half

distance); do a skew-flip and decelerate the other half time (and distance). You can't use the whole distance in the equation, as "time" appears as a square—it's a parabolic.

Was Pluto in opposition? Or quadrature? Or conjunction? Nobody looks at Pluto—so why remember where it is on the ecliptic? Oh, well, the average distance was 30 A.U.s—that would give a close-enough answer.

Half that distance, in feet, is:
 $\frac{1}{2} \times 30 \times 93,000,000 \times 5280$.

Eight gravities is: 8×32.2 ft./sec./sec.—speed increases by 258 feet per second every second up to skew-flip and decreases just as fast thereafter. So—

$$\frac{30 \times 93 \times 10^6 \times 5280 \text{ feet}}{2}$$

$$= \frac{1}{2} \times 8 \times 32.2 \text{ feet/sec.}^2 \times (t)^2$$

—and you wind up with the time for half the trip, in seconds. Double that for full trip. Divide by 3600 to get hours; divide by 24 and you have days. On a slide rule such a problem takes forty seconds, most of it to get your decimal point correct. It's as easy as computing sales tax.

It took me at least an hour and almost as long to prove it, using a different sequence—and a third time, because the answers didn't match (I had forgotten to multiply by 5280, and had "miles" on one side and "feet" on the other—a no-good way to do arithmetic), then a fourth time because my confi-

dence was shaken. I tell you, the slide rule is the greatest invention since girls.

But I got a proved answer. Five and a half days. I was on Pluto.

Or maybe Neptune—

No, on Neptune I would not be able to jump to a 12-foot ceiling; Pluto alone matched all facts. So I erased and computed the trip at one gravity, with turn-over.

Fifteen days.

It seemed to me that it ought to take at least eight times as long at one *g* as at eight—more likely sixty-four. Then I was glad I had bulled my way through analytical geometry, for I made a rough plot and saw the trouble. Squared time *cut down* the advantage—because the more boost, the shorter the trip, and the shorter the trip the less time in which to use the built-up speed. To cut time in half, you need four times as much boost; to cut it to a quarter, you need *sixteen* times the boost, and so on. This way lies bankruptcy.

To learn that I could get home in about two weeks at one gravity cheered me. I couldn't starve in two weeks. If I could steal a ship. If I could run it. If I could climb out of this hole. If—

Not "if," but "when". I was too late for college this year; fifteen more days wouldn't matter.

I had noticed in the first problem, the speed we had been making at skew-flip. More than eleven

thousand miles per second. That's a nice speed, even in space. It made me think. Consider the nearest star. Proxima Centauri, four and three-tenths light-years away, the distance you hear so often on quiz shows. How long at eight *g*'s?

The problem was the same sort but I had to be careful about decimal points; the figures mount up. A light-year is—I had forgotten. So multiply 186,000 miles per second (the speed of light) by the seconds in a year ($365.25 \times 24 \times 3600$) and get — 5,880,000,000,000 miles

—multiply that by 4.3 and get—
25,284,000,000,000

Call it twenty-five trillion miles. Whew!

It works out to a year and five months—not as long as a trip around the Horn only last century.

Why, these monsters had star travel!

I don't know why I was surprised; it had been staring me in the face. I had assumed that Wormface had taken me to his home planet, that he was a Plutonian, or Plutocrat, or whatever the word is. But he *couldn't* be.

He breathed air. He kept his ship warm enough for me. When he wasn't in a hurry, he cruised at one *g*, near enough. He used lighting that suited my eyes. Therefore he came from the sort of planet I came from.

Proxima Centauri is a double

star, as you know if you do crossword puzzles, and one is a twin for our own Sun—size, temperature, spectral pattern. It is a fair guess that it has a planet like Earth. I had a dirty hunch that I knew Wormface's home address.

I knew where he *didn't* come from. Not from a planet that runs a couple of centuries in utter airlessness with temperatures pushing absolute zero, followed by a "summer" in which some gases melt but water is solid rock and even Wormface has to wear a space suit. Nor from anywhere in our system, for I was sure as taxes that Wormface felt at home only on a planet like ours. Never mind the way he looked; spiders don't look like us but they like the things we like—there must be a thousand spiders in our houses for every one of us.

Wormface and his kin would like Earth. My fear was that they liked it too much.

I looked at that Proxima Centauri problem and saw something else. The turn-over speed read 1,110,000 miles per second, six times the speed of light. Relativity theory says that's impossible.

I wanted to talk to Dad about it. Dad reads everything from *The Anatomy of Melancholy* to *Acta Mathematica* and *Paris-Match* and will sit on a curbstone separating damp newspapers wrapped around garbage

in order to see continued-on-page-eight. Dad would haul down a book and we'd look it up. Then he would try four or five more with other opinions. Dad doesn't hold with the idea that it - must - be - true - or - they - wouldn't - have - printed - it; he doesn't consider *any* opinion sacred — it shocked me the first time he took out a pen and changed something in one of my math books.

Still, even if speed-of-light was a limit, four or five years wasn't impossible, or even impractical. We've been told for so long that star trips, even to the nearest stars, would take generations that we may have a wrong slant. A mile of lunar mountains is a long way but a billion miles in empty space may not be.

But what was Wormface doing on Pluto?

If you were invading another solar system, how would you start? I'm not joking; a dungeon on Pluto is no joke and I never laughed at Wormface. Would you just barge in, or toss your hat in first? They seemed far ahead of us in engineering but they couldn't have known that ahead of time. Wouldn't it be smart to build a supply base in that system in some spot nobody ever visited?

Then you could set up advance bases, say on an airless satellite of a likely-looking planet, from which you could scout the sur-

face of the target planet. If you lost your scouting base, you would pull back to main base and work out a new attack.

Remember that while Pluto is a long way off to us, it was only five days from Luna for Wormface. Think about World War II, back when speeds were slow. Main Base is safely out of reach (U.S.A./Pluto) but only about five days from advance base (England/The Moon) which is three hours from theater-of-operations (France - Germany/Earth). That's a slow way to operate but it worked for the Allies in World War II.

I just hoped it would not work for Wormface's gang.

Though I didn't see anything to prevent it.

Somebody chucked down another can—spaghetti and meat balls. If it had been canned peaches, I might not have had the fortitude to do what I did next, which was to use it for a hammer before I opened it. I beat an empty can into a flat narrow shape and beat a point on it, which I sharpened on the edge of the catch basin. When I was through, I had a dagger—not a good one, but it made me feel less helpless.

Then I ate. I felt sleepy and went to sleep in a warm glow. I was still a prisoner but I had a weapon of sorts and I believed that I had figured out what I was

up against. Getting a problem analyzed is two-thirds of solving it. I didn't have nightmares.

The next thing tossed down the hole was Fats.

Skinny landed on him seconds later. I backed off and held my dagger ready. Skinny ignored me, picked himself up, looked around, went to the water spout and got a drink. Fats was in no shape to do anything; his breath was knocked out.

I looked at him and thought what a nasty parcel he was. Then I thought, oh, what the deuce! —he had massaged me when I needed it. I heaved him onto his stomach and began artificial respiration. In four or five pushes his motor caught and he was able to breathe. He gasped, "That's enough!"

I backed off, got my knife out. Skinny was sitting against a wall, ignoring us. Fats looked at my feeble weapon and said, "Put that away, kid. We're bosom buddies now."

"We are?"

"Yeah. Us human types had better stick together." He sighed wretchedly. "After all we done for him! That's gratitude."

"What do you mean?" I demanded.

"Huh?" said Fats. "Just what I said. *He* decided he could do without us. So Annie doesn't live here anymore."

"Shaddap," the skinny one said flatly.

Fats screwed his face into a pout. "You shaddap," he said peevishly. "I'm tired of that. It's shaddap here, shaddap there, all day long—and look where we are."

"Shaddap, I said."

Fats shut up. I never did find out what had happened, because Fats seldom gave the same explanation twice. The older man never spoke except for that tiresome order to shut up, or in monosyllables even less helpful. But one thing was clear: they had lost their jobs as assistant gangsters, or fifth columnists, or whatever you call a human being who would stooge against his own race. Once Fats said, "Matter of fact, it's *your* fault."

"Mine?" I dropped my hand to my tin-can knife.

"Yours. If you hadn't butted in, *he* wouldn't have got sore."

"I didn't do anything."

"Says you. You swiped his two best prizes, that's all, and held *him* up when *he* planned to high-tail it back here."

"Oh. But that wasn't your fault."

"So I told him. *You* try telling him. Take your hand away from that silly nail file." Fats shrugged. "Like I always say, let bygones be bygones."

I finally learned the thing I wanted most to know. About the fifth time I brought up the matter

of Peewee, Fats said, "What d'you want to know about the brat for?"

"I just want to know whether she's alive or dead."

"Oh, she's alive. Leastwise she was last time I seen her."

"When was that?"

"You ask too many questions. Right here."

"She's *here*?" I said eagerly.

"That's what I said, wasn't it? Around everywhere and always underfoot. Living like a princess, if you ask me." Fats picked his teeth and frowned. "Why *he* should make a pet out of her and treat us the way he did, beats me. It ain't right."

I didn't think so, either, but for another reason. The idea that gallant little Peewee was the spoiled darling of Wormface I found impossible to believe. There was some explanation—or Fats was lying. "You mean he doesn't have her locked up?"

"What's it get him? Where's she gonna go?"

I had pondered that myself. Where *could* you go?—when to step outdoors was suicide. Even if Peewee had her space suit (and that, at least, was probably locked up), even if a ship was at hand and empty when she got outside, even if she could get into it, she still wouldn't have a "ship's brain," the little gadget that served as a lock. "What happened to the Mother Thing?"

"The what?"

"The—" I hesitated. "Uh, the non-human who was in my space suit with me. You must know, you were there. Is she alive? Is she here?"

But Fats was brooding. "Them bugs don't interest me none," he said sourly and I could get no more out of him.

But Peewee was alive (and a hard lump in me was suddenly gone). She was here! Her chances, even as a prisoner, had been enormously better on the Moon; nevertheless I felt almost ecstatic to know that she was near. I began thinking about ways to get a message to her.

As for Fats's insinuation that she was playing footy with Wormface, it bothered me not at all. Peewee was unpredictable and sometimes a brat and often exasperating, as well as conceited, supercilious, and downright childish. But she would be burned alive rather than turn traitor. Joan of Arc had not been made of sterner stuff.

We three kept uneasy truce. I avoided them, slept with one eye open, and tried not to sleep unless they were asleep first, and I always kept my dagger at hand. I did not bathe after they joined me; it would have put me at a disadvantage. The older one ignored me, Fats was almost friendly. He pretended not to be afraid of my puny weapon, but I think he

was. The reason I think so comes from the first time we were fed. Three cans dropped from the ceiling; Skinny picked up one, Fats got one, but when I circled around to take the third, Fats snatched it.

I said, "Give me that, please."

Fats grinned. "What makes you think this is for you, sonny boy?"

"Uh, three cans, three people."

"So what? I'm feeling a mite hungry. I don't hardly think I can spare it."

"I'm hungry, too. Be reasonable."

"Mmmm..." He seemed to consider it. "Tell you what. I'll sell it to you."

I hesitated. It had a shifty logic; Wormface couldn't walk into Lunar Base commissary and buy these rations, probably Fats or his partner had bought them. I wouldn't mind signing I.O.U.s—a hundred dollars a meal, a thousand, or a million; money no longer meant anything. Why not humor him?

No! If I gave in, if I admitted I had to dicker with him for my prison rations, he would own me. I'd wait on him hand and foot, do anything he told me, just to eat.

I let him see my tin dagger. "I'll fight you for it."

Fats glanced at my hand and grinned broadly. "Can't you take a joke?" He tossed me the can. There was no trouble at feeding

times after that.

We lived like that "Happy Family" you sometimes see in traveling zoos: a lion caged with a lamb. It is a startling exhibit but the lamb has to be replaced frequently. Fats liked to talk and I learned things from him, when I could sort out truth from lies. His name—so he said—was Jacques de Barre de Vigny ("Call me 'Jock.'") and the older man was Timothy Johnson—but I had a hunch that their real names could be learned only by inspecting post-office bulletin boards. Despite Jock's pretense of knowing everything, I soon decided that he knew nothing about Wormface's origin and little about his plans and purposes. Wormface did not seem the sort to discuss things with "lower animals"; he would simply make use of them, as we use horses.

Jock admitted one thing readily. "Yeah, we put the snatch on the brat. There's no uranium on the Moon; those stories are just to get suckers. We were wasting our time—and a man's got to eat, don't he?"

I didn't make the obvious retort; I wanted information. Tim said, "Shaddap!"

"Aw, what of it, Tim? You worried about the FBI? You think the MAN can put the arm on you—*here*?"

"Shaddap, I said."

"Happens I feel like talking.

So blow it." Jock went on, "It was easy. The brat's got more curiosity than seven cats. *He* knew she was coming and when." Jock looked thoughtful. "*He* always knows—he's got lots of people working for him, some high up. All I had to do was be in Luna City and get acquainted—I made the contact because Tim here ain't the fatherly type, the way I am. I get to talking with her, I buy her a coke, I tell her about the romance of hunting uranium on the Moon and similar hogwash. Then I sigh and say it's too bad I can't show her the mine of my partner and I. That's all it took. When the tourist party visited Tombaugh Station, she got away and sneaked out the lock—she worked that part out her ownself. She's sly, that one. All we had to do was wait where I told her—didn't even have to be rough with her until she got worried about taking longer for the crawler to get to our mine than I told her." Jock grinned. "She fights pretty well for her weight. Scratched me some."

Poor little Peewee! Too bad she hadn't drawn and quartered him! But the story sounded true for it was the way Peewee would behave—sure of herself, afraid of no one, unable to resist any "educational" experience.

Jock went on, "It wasn't the brat *he* wanted. *He* wanted her old man. Had some swindle to

get him to the Moon, didn't work." Jock grinned sourly. "That was a bad time, things ain't good when *he* don't have his own way. But he had to settle for the brat. Tim here pointed out to him he could trade."

Tim chuckled in one word which I took as a general denial. Jock raised his eyebrows. "Listen to vinegar puss. Nice manners, ain't he?"

Maybe I should have kept quiet since I was digging for facts, not philosophy. But I've got Peewee's failing myself; when I don't understand, I have an unbearable itch to know why. I didn't (and don't) understand what made Jock tick. "Jock? Why did you do it?"

"Huh?"

"Look, you're a human being." (At least he looked like one.) "As you pointed out, we humans had better stick together. How could you bring yourself to kidnap a little girl—and turn her over to *him*?"

"Are you crazy, boy?"

"I don't think so."

"You talk crazy. Have you ever tried not doing something *he* wanted? Try it some time."

I saw his point. Refusing Wormface would be like a rabbit spitting in a snake's eye—as I knew too well. Jock went on, "You got to understand the other man's viewpoint. Live and let live, I always say. We got grabbed while

we were messin' around, lookin' for carnotite—and after that, we never stood no chance. You can't fight City Hall, that gets you nowhere. So we made a dicker—we run his errands, he pays us in uranium."

My faint sympathy vanished. I wanted to throw up. "And you got paid?"

"Well . . . you might say we got time on the books."

I looked around our cell. "You made a bad deal."

Jock grimaced, looking like a sulky baby. "Maybe so. But be reasonable, kid. You got to cooperate with the inevitable. These boys are moving in—they got what it takes. You seen that yourself. Well, a man's got to look out for number one, don't he? It's a cinch nobody else will. Now I seen a case like this when I was no older than you and it taught me a lesson. Our town had run quietly for years, but the Big Fellow was getting old and losing his grip . . . whereupon some boys from St. Louis moved in. Things were confused for a while. A man had to know which way to jump—else he woke up wearing a wooden overcoat, like as not. Those that seen the handwriting made out; those that didn't . . . well, it don't do no good to buck the current, I always say. That makes sense, don't it?"

I could follow his "logic"—provided you accepted his "live

louse" standard. But he had left out a key point. "Even so, Jock, I don't see how you could do that to a little girl."

"Huh? I just explained how we couldn't help it."

"But you *could*. Even allowing how hard it is to face up to *him* and refuse orders, you had a perfect chance to duck out."

"Wha' d'you mean?"

"He sent you to Luna City to find her, you said so. You've got a return-fare benefit—I know you have, I know the rules. All you had to do was sit tight, where *he* couldn't reach you—and take the next ship back to Earth. You didn't have to do his dirty work."

"But—"

I cut him off. "Maybe you couldn't help yourself, out in a lunar desert. Maybe you wouldn't feel safe even inside Tombaugh Station. But when he sent you into Luna City, you had your chance. You didn't have to steal a little girl and turn her over to a—a bug-eyed monster!"

He looked baffled, then answered quickly. "Kip, I like you. You're a good boy. But you ain't smart. You don't understand."

"I think I do!"

"No, you don't." He leaned towards me, started to put a hand on my knee; I drew back. He went on, "There's something I didn't tell you . . . for fear you'd think I was a—well, a zombie, or something. They operated on us."

"Huh?"

"They operated on us," he went on glibly. "They planted bombs in our heads. Remote control, like a missile. A man gets out of line . . . *he* punches a button—*blooiel* Brains all over the ceiling." He fumbled at the nape of his neck. "See the scar? My hair's getting kinda long . . . but if you look close I'm sure you'll see, it can't've disappeared entirely. See it?"

I started to look. I might even have been sold on it—I had been forced to believe less probable things lately. Tim cut short my suspended judgment with one explosive word.

Jock flinched, then braced himself and said, "Don't pay any attention to *him*!"

I shrugged and moved away. Jock didn't talk the rest of that "day." That suited me.

The next "morning" I was roused by Jock's hand on my shoulder. "Wake up, Kip! Wake up!"

I groped for my toy weapon. "It's over there by the wall," Jock said, "but it ain't ever goin' to do you any good *now*."

I grabbed it. "What do you mean? Where's Tim?"

"You didn't wake up?"

"Huh?"

"This is what I've been scared of. Cripes, boy! I just had to talk to somebody. You slept through it?"

"Through what? And where's Tim?"

Jock was shivering and sweating. "They blue-lighted us, that's what. They took Tim." He shuddered. "I'm glad it was him. I thought—well, maybe you've noticed I'm a little stout . . . they like fat."

"What do you mean? What have they done with him?"

"Poor old Tim. He had his faults, like anybody, but—He's soup, by now . . . that's what." He shuddered again. "They like soup—bones and all."

"I don't believe it. You're trying to scare me."

"So?" He looked me up and down. "They'll probably take you next. Son, if you're smart, you'll take that letter opener of yours over to that horse trough and open your veins. It's better that way."

I said, "Why don't you? Here, I'll lend it to you."

He shook his head and shivered. "I ain't smart."

I don't know what became of Tim. I don't know whether the wormfaces ate people, or not. (You can't say "cannibal." We may be mutton, to them.) I wasn't especially scared because I had long since blown all fuses in my "scare" circuits.

What happens to my body after I'm through with it doesn't matter to me. But it did to Jock; he had a phobia about it. I don't

think Jock was a coward; cowards don't even try to become prospectors on the Moon. He believed his theory and it shook him. He halfway admitted that he had more reason to believe it than I had known. He had been to Pluto once before, so he said, and other men who had come along, or been dragged, on that trip hadn't come back.

When feeding time came—two cans—he said he wasn't hungry and offered me his ration. That "night" he sat up and kept himself awake. Finally I just had to go to sleep before he did.

I awoke from one of those dreams where you can't move. The dream was correct; sometime not long before, I had surely been blue-lighted.

Jock was gone.

I never saw either of them again.

Somehow I missed them . . . Jock at least. It was a relief not to have to watch all the time, it was luxurious to bathe. But it gets mighty boring, pacing your cage alone.

I have no illusions about them. There must be well over three billion people I would rather be locked up with. But they were *people*.

Tim didn't have anything else to recommend him; he was as coldly vicious as a guillotine. But Jock had some slight awareness

of right and wrong, or he wouldn't have tried to justify himself. You might say he was just weak.

But I don't hold with the idea that to understand all is to forgive all; you follow that and first thing you know you're sentimental over murderers and rapists and kidnappers and forgetting their victims. That's wrong. I'll weep over the likes of Peewee, not over criminals whose victims they are. I missed Jock's talk but if there were some way to drown such creatures at birth, I'd take my turn as executioner.

If they ended up as soup for hobgoblins, I couldn't honestly be sorry—even though it might be my turn tomorrow.

As soup, they probably had their finest hour.

VIII

I was jarred out of useless brain-cudgeling by an explosion, a sharp *crack*—a bass rumble—then a *whoosh!* of reduced pressure. I bounced to my feet—anyone who has ever depended on a space suit is never again indifferent to a drop in pressure.

I gasped, "What the deuce!"

Then I added, "Whoever is on watch had better get on the ball—or we'll *all* be breathing thin cold stuff." No oxygen outside, I was sure—or rather the astronomers were and I didn't want to test it.

Then I said, "Somebody bombing us? I hope.

"Or was it an earthquake?"

This was an idle remark. That *Scientific American* article concerning "summer" on Pluto had predicted "sharp isostatic readjustments" as the temperature rose—which is a polite way of saying, "Hold your hats! Here comes the chimney!"

I was in an earthquake once, in Santa Barbara; I didn't need a booster shot to remember what every Californian knows and others learn in one lesson: when the ground does a jig, *Get Outdoors!*

Only I couldn't.

I spent two minutes checking whether adrenalin had given me the strength to jump eighteen feet instead of twelve. It hadn't. That was all I did for a half hour, if you don't count nail biting.

Then I heard my name! "Kip! Oh, Kip!"

"Peewee!" I screamed. "Here! Peewee!"

Silence for an eternity of three heart beats . . . "Kip?"

"Down HERE!"

"Kip? Are you down this hole?"

"Yes! Can't you see me?" I saw her head against the light above.

"Uh, I can now. Oh, Kip, I'm so glad!"

"Then why are you crying? So am I!"

"I'm not crying," she blubbered. "Oh Kip . . . Kip."

"Can you get me out?"

"Uh—" She surveyed that drop.

"Stay where you are."

"Don't go 'way—" She already had.

She wasn't gone two minutes; it merely seemed like a week. Then she was back and the darling had a nylon rope!

"Grab on!" she shrielled.

"Wait a sec. How is it fastened?"

"I'll pull you up."

"No, you won't—or we'll *both* be down here. Find somewhere to delay it."

"I can lift you."

"Belay it! *Hurry!*"

She left again, leaving an end in my hands. Shortly I heard very faintly: "*On belay!*"

I shouted, "Testing!" and took up the slack. I put my weight on it—it held. "*Climbing!*" I yelled, and followed the final "g" up the hole and caught it.

She flung herself on me, an arm around my neck, one around Madame Pompadour, and both of mine around her. She was even smaller and skinnier than I remembered. "Oh, Kip, it's been *just awful.*"

I patted her bony shoulder blades. "Yeah, I know. What do we do now? Where's W—"

I started to say, "Where's Wormface?" but she burst into tears.

"Kip—I think she's *dead!*"

My mind skidded—I was a bit

stir crazy anyhow. "Huh? Who?"

She looked as amazed as I was confused. "Why, the Mother Thing."

"Oh." I felt a flood of sorrow. "But, honey, are you *sure?* She was talking to me right up to the last—and I didn't die."

"What in the world are you talk— Oh. I don't mean *then*, Kip; I mean *now.*"

"Huh? She was *here?*"

"Of course. Where else?"

Now that's a silly question, it's a big universe. I had decided long ago that the Mother Thing couldn't be here—because Jock had brushed off the subject. I reasoned that Jock would either have said that she was here or have invented an elaborate lie, for the pleasure of lying. Therefore she wasn't on his list—perhaps he had never seen her save as a bulge under my suit.

I was so sure of my "logic" that it took a long moment to throw off prejudice and accept fact. "Peewee," I said, gulping, "I feel like I'd lost my own mother. Are you *sure?*"

"Feel as if," she said automatically. "I'm not *sure* sure . . . but she's outside—so she *must* be dead."

"Wait a minute? If she's outside, she's wearing a space suit. Isn't she?"

"No, no! She hasn't had one— not since they destroyed her ship."

I was getting more confused.

"How did they bring her in here?"

"They just sacked her and sealed her and carried her in. Kip—*what do we do now?*"

I knew several answers, all of them wrong. I had already considered them during my stretch in jail. "Where is Wormface? Where are all the wormfaces?"

"Oh. All dead. I think."

"I hope you're right." I looked around for a weapon and never saw a hallway so bare. My toy dagger was only eighteen feet away but I didn't feel like going back down for it. "What makes you think so?"

Peewee had reason to think so. The Mother Thing didn't look strong enough to tear paper but what she lacked in beef she made up in brains. She had done what I had tried to do: reason out a way to take them all on. She had not been able to hurry because her plan had many factors, all of which had to mesh at once and many of them she could not influence; she had to wait for the breaks.

First, she needed a time when there were few wormfaces around. The base was indeed a large supply dump and spaceport and transfer point, but it did not need a large staff. It had been unusually crowded the few moments I had seen it, because our ship was in.

Second, it also had to be when no ships were in because she

couldn't cope with a ship—she couldn't get at it.

Third, H-Hour had to be while the wormfaces were feeding. They all ate together when there were few enough not to have to use their mess hall in relays—crowded around one big tub and sopping it up, I gathered: a scene out of Dante. That would place all her enemies on one target, except possibly one or two on engineering or communication watches.

"Wait a minute!" I interrupted. "You said they were *all* dead?"

"Well . . . I don't know. I haven't seen any."

"Hold everything until I find something to fight with."

"But—"

"First things first, Peewee."

Saying that I was going to find a weapon wasn't finding one. That corridor had nothing but more holes like the one I had been down—which was why Peewee had looked for me there; it was one of the few places where she had not been allowed to wander at will. Jock had been correct on one point: Peewee—and the Mother Thing—had been star prisoners, allowed all privileges except freedom . . . whereas Jock and Tim and myself had been third-class prisoners and/or soup bones. It fitted the theory that Peewee and the Mother Thing were hostages rather than ordinary P.W.s.

I didn't explore those holes

after I looked down one and saw a human skeleton—maybe they got tired of tossing food to him. When I straightened up Peewee said, "What are you shaking about?"

"Nothing. Come on."

"I want to see."

"Peewee, every second counts and we've done nothing but yak. Come on. Stay behind me."

I kept her from seeing the skeleton, a major triumph over that little curiosity box—although it probably would not have affected her much; Peewee was sentimental only when it suited her.

"Stay behind me" had the correct gallant sound but it was not based on reason. I forgot that attack could come from the rear—I should have said: "Follow me and watch behind us."

She did anyway. I heard a squeal and whirled around to see a wormface with one of those camera-like things aimed at me. Even though Tim had used one on me I didn't realize what it was; for a moment I froze.

But not Peewee. She launched herself through the air, attacking with both hands and both feet in the gallant audacity and utter recklessness of a kitten.

That saved me. Her attack would not have hurt anything but another kitten but it mixed him up so that he didn't finish what he was doing, namely paralyzing

or killing me; he tripped over her and went down.

And I stomped him. With my bare feet I stomped him, landing on that lobster-horror head with both feet.

His head *crunched*.

It was like jumping in a strawberry box. It splintered and crunched and went to pieces. I cringed at the feel, even though I was in an agony to fight, to kill. I trampled worms and hopped away, feeling sick. I scooped up Peewee and pulled her back, as anxious to get clear as I had been to join battle seconds before.

I hadn't killed it. For an awful moment I thought I was going to have to wade back in. Then I saw that while it was alive, it did not seem aware of us. It flopped like a chicken freshly chopped, then quieted and began to move purposefully.

But it couldn't see. I had smashed its eyes and maybe its ears—but certainly those terrible eyes.

It felt around the floor carefully, then got to its feet, still undamaged except that its head was a crushed ruin. It stood still, braced tripod-style by that third appendage, and felt the air. I pulled us back farther.

It began to walk. Not toward us or I would have screamed. It moved away, ricocheted off a wall, straightened out, and went back the way we had come.

It reached one of those holes they used for prisoners, walked into it and dropped.

I sighed, and realized that I had been holding Peewee too tightly to breathe. I put her down.

"There's your weapon," she said.

"Huh?"

"On the floor. Just beyond where I dropped Madame Pompadour. The gadget." She went over, picked up her dolly, brushed away bits of ruined wormface, then took the camera-like thing and handed it to me. "Be careful. Don't point it toward you. Or me."

"Peewee," I said faintly, "don't you ever have an attack of nerves?"

"Sure I do. When I have leisure for it. Which isn't now. Do you know how to work it?"

"No. Do you?"

"I think so. I've seen them, and the Mother Thing told me about them." She took it, handling it casually but not pointing it at either of us. "These holes on top—uncover one of them, it stuns. If you uncover them all, it kills. To make it work you push it *here*." She did and a bright blue light shot out, splashed against the wall. "The light doesn't do anything," she added. "It's for aiming. I hope there wasn't anybody on the other side of that wall. No, I hope there was. You know what I mean."

It looked like a cockeyed 35 mm. camera, with a lead lens—one built from an oral description. I took it, being very cautious where I pointed it, and looked at it. Then I tried it—full force, by mistake.

The blue light was a shaft in the air and the wall where it hit glowed and began to smoke. I shut it off.

"You wasted power," Peewee chided. "You may need it later."

"Well, I had to try it. Come on, let's go."

Peewee glanced at her Mickey Mouse watch—and I felt irked that it had apparently stood up when my fancy one had not. "There's very little time, Kip. Can't we assume that only this one escaped?"

"What? We certainly *cannot*! Until we're sure that all of them are dead, we can't do *anything* else. Come on."

"But— Well, I'll lead. I know my way around, you don't."

"No."

"Yes!"

So we did it her way; she led and carried the blue-light projector while I covered the rear and wished for a third eye, like a wormface. I couldn't argue that my reflexes were faster when they weren't, and she knew more than I did about our weapon.

But it's graveling, just the same.

The base was huge; half that mountain must have been honey-

combed. We did it at a fast trot, ignoring things as complicated as museum exhibits and twice as interesting, simply making sure that no wormface was anywhere. Pee-wee ran with the weapon at the ready, talking twenty to the dozen and urging me on.

Besides an almost empty base, no ships in, and the wormfaces feeding, the Mother Thing's plan required that all this happen shortly before a particular hour of the Plutonian night.

"Why?" I panted.

"So she could signal her people, of course."

"But—" I shut up. I had wondered about the Mother Thing's people but didn't even know as much about her as I did about Wormface—except that she was everything that made her the Mother Thing. Now she was dead. Pee-wee said that she was outside without a space suit, so she was purely dead; that little soft warm thing wouldn't last two seconds in that ultra-arctic weather. Not to mention suffocation and lung hemorrhage. I choked up.

Of course, Pee-wee might be wrong. I had to admit that she rarely was—but this might be one of the times . . . in which case we would find her. But if we didn't find her, she was outside and—"Pee-wee, do you know where my space suit is?"

"Huh? Of course. Right next to where I got this." She patted the

nylon rope, which she had coiled around her waist tied in a bow.

"Then the second we are sure that we've cleaned out the wormfaces I'm going outside and look for her!"

"Yes, yes! But we've got to find *my* suit, too. I'm going with you."

No doubt she would. Maybe I could persuade her to wait in the tunnel out of that bone-freezing wind. "Pee-wee, why did she have to send her message at night? To a ship in a rotation-period orbit? Or is there—"

My words were chopped off by a rumble. The floor shook in that loose-bearing vibration that frightens people and animals alike. We stopped dead. "What was that?" Pee-wee whispered.

I swallowed. "Unless it's part of this rumpus the Mother Thing planned—"

"It isn't. I think."

"It's a quake."

"An earthquake?"

"A Pluto quake. Pee-wee, we've got to get out of here!"

I wasn't thinking about *where*—you don't in a quake. Pee-wee gulped. "We can't bother with earthquakes; we haven't time. Hurry, Kip, hurry!" She started to run and I followed, gritting my teeth. If Pee-wee could ignore a quake, so could I—though it's like ignoring a rattlesnake in bed.

"Pee-wee . . . Mother Thing's people . . . is their ship in orbit around Pluto?"

"What? Oh, no, no! They're not in a ship."

"Then, why at night? Something about the Heaviside layers here? How far away is their base?" I was wondering how far a man could walk here. We had done almost 40 miles on the Moon. Could we do 40 blocks here? Or even 40 yards? You could insulate your feet, probably. But that wind—"Peewee, they don't *live* here, do they?"

"What? Don't be silly! They have a nice planet of their own. Kip, if you keep asking foolish questions, we'll be too late. Shut up and listen."

I shut up. What follows I got in snatches as we ran, and some of it later. When the Mother Thing had been captured, she had lost ship, space clothing, communicator, everything; Wormface had destroyed it all. There had been treachery, capture through violation of truce while parleying. "He grabbed her when they were supposed to be under a King's X," was Peewee's indignant description, "and that's not fair! He had promised."

Treachery would be as natural in Wormface as venom in a Gila monster; I was surprised that the Mother Thing had risked a palaver with him. It left her a prisoner of ruthless monsters equipped with ships that made ours look like horseless carriages, weapons which started with a

"death ray" and ended heaven knows where, plus bases, organization, supplies.

She had only her brain and her tiny soft hands.

Before she could use the rare combination of circumstances necessary to have any chance at all she had to replace her communicator (I think of it as her "radio" but it was more than that) and she had to have weapons. The only way she could get them was to build them.

She had nothing, not a bobby pin—only that triangular ornament with spirals engraved on it. To build anything she had to gain access to a series of rooms which I would describe as electronics labs—not that they looked like the bench where I jiggered with electronics, but electron-pushing has its built-in logic. If electrons are to do what you want them to, components have to look pretty much a certain way, whether built by humans, wormfaces, or the Mother Thing. A wave guide gets its shape from the laws of nature, an inductance has its necessary geometry, no matter who the technician is.

So it looked like an electronics lab—a very good one. It had gears I did not recognize, but which I felt I could understand if I had time. I got only a glimpse.

The Mother Thing spent many, many hours there. She would not have been permitted there, even

though she was a prisoner-at-large with freedom in most ways and anything she wanted, including private quarters with Peewee. I think that Wormface was afraid of her, even thought she was a prisoner—he did not want to offend her unnecessarily.

She got the run of their shops by baiting their cupidity. Her people had many things that wormfaces had not—gadgets, inventions, conveniences. She began by inquiring why they did a thing this way rather than another way which was so much more efficient? A tradition? Or religious reasons?

When asked what she meant she looked helpless and protested that she couldn't *explain*—which was a shame because it was simple and so easy to build, too.

Under close chaperonage she built something. The gadget worked. Then something else. Presently she was in the labs daily, making things for her captors, things that delighted them. She always delivered; the privilege depended on it.

But each gadget involved parts she needed herself.

"She sneaked bits and pieces into her pouch," Peewee told me. "They never knew exactly what she was doing. She would use five of a thing and the sixth would go into her pouch."

"Her pouch?"

"Of course. That's where she

hid the 'brain' the time she and I swiped the ship. Didn't you know?"

"I didn't know she had a pouch."

"Well, neither did they. They watched to see she didn't carry anything out of the shop—and she never did. Not where it showed."

"Uh, Peewee, is the Mother Thing a marsupial?"

"Huh? Like possums? You don't have to be a marsupial to have a pouch. Look at squirrels, they have pouches in their cheeks."

"Mmm, yes."

"She sneaked a bit now and a bit then, and I swiped things, too. During rest time she worked on them in our room."

The Mother Thing had not slept all the time we had been in Pluto. She worked long hours publicly, making things for wormfaces—a stereotelephone no bigger than a pack of cigarettes, a tiny beetle-like arrangement that crawled all over anything it was placed on and integrated the volume, many other things. But during hours set apart for rest she worked for herself, usually in darkness, those tiny fingers busy as a blind watchmaker's.

She made two bombs and a long-distance communicator-and-beacon.

I didn't get all this tossed over Peewee's shoulder while we raced through the base; she simply told me that the Mother Thing had

managed to build a radio-beacon and had been responsible for the explosion I had felt. And that we must hurry, hurry, *hurry!*

"Peewee," I said, panting. "What's the rush? If the Mother Thing is outside, I want to bring her in—her body, I mean. But you act as if we had a deadline."

"We do!"

The communicator-beacon had to be placed outside at a particular local time (the Plutonian day is about a week—the astronomers were right again) so that the planet itself would not blanket the beam. But the Mother Thing had no space suit. They had discussed having Peewee suit up, go outside, and set the beacon—it had been so designed that Peewee need only trigger it. But that depended on locating Peewee's space suit, then breaking in and getting it after the wormfaces were disposed of.

They had never located it. The Mother Thing had said serenely, singing confident notes that I could almost hear ringing in my head: [*"Never mind, dear. I can go out and set it myself."*]

"Mother Thing! You *can't!*" Peewee had protested. "It's *cold* out there."

[*"I shan't be long."*]

"You won't be able to *breathe.*"

[*"It won't be necessary, for so short a time."*]

That settled it. In her own way, the Mother Thing was as hard

to argue with as Wormface.

The bombs were built, the beacon was built, a time approach when all factors would match—no ship expected, few wormfaces, Pluto faced the right way, feeding time for the staff—and they still did not know where Peewee's suit was—if it had not been destroyed. The Mother Thing resolved to go ahead.

"But she told me, just a few hours ago when she let me know that today was the day, that if she did not come back in ten minutes or so, she hoped I could find my suit and trigger the beacon—if she hadn't been able to." Peewee started to cry. "That was the f-f-first time she admitted that she wasn't sure she could do it!"

"Peewee! Stop it! Then what?"

"I waited for the explosions—they came, right together—and I started to search, places I hadn't been allowed to go. But I *couldn't* find my suit! Then I found you and—oh, Kip, she's been out there almost an hour!" She looked at her watch. "There's only about twenty minutes left. If the beacon isn't triggered by then, she's had all her trouble and died for n-n-nothing! She wouldn't *like* that."

"Where's my suit!"

We found no more wormfaces—apparently there was only one on duty while the others fed. Peewee showed me a door, air-

lock type, behind which was the feeding chamber—the bomb may have cracked that section for gas-tight doors had closed themselves when the owners were blown to bits. We hurried past.

Logical as usual, Peewee ended our search at my space suit. It was one of more than a dozen human-type suits—I wondered how much soup those ghouls ate. Well, they wouldn't eat again! I wasted no time; I simply shouted, "Hi, Oscar!" and started to suit up.

("Where you been, chum?")

Oscar seemed in perfect shape. Fats's suit was next to mine and Tim's next to it; I glanced at them as I stretched Oscar out, wondering whether they had equipment I could use. Peewee was looking at Tim's suit. "Maybe I can wear this."

It was much smaller than Oscar, which made it only nine sizes too big for Peewee. "Don't be silly! It'd fit you like socks on a rooster. Help me. Take off that rope, coil it and clip it to my belt."

"You won't need it. The Mother Thing planned to take the beacon out the walkway about a hundred yards and sit it down. If she didn't manage it, that's all you do. Then twist the stud on top."

"Don't argue! How much time?"

"Yes, Kip. Eighteen minutes."

"Those winds are strong," I added. "I may need the line." The Mother Thing didn't weigh much.

If she had been swept off, I might need a rope to recover her body. "Hand me that hammer off Fats's suit."

"Right away!"

I stood up. It felt good to have Oscar around me. Then I remembered how *cold* my feet got, walking in from the ship. "I wish I had asbestos boots."

Peewee looked startled. "Wait right here!" She was gone before I could stop her. I went on sealing up while I worried—she hadn't even stopped to pick up the projector weapon. Shortly I said, "Tight, Oscar?"

("Tight, boy!")

Chin valve OK, blood-color OK, radio—I wouldn't need it, water—The tank was dry. No matter, I wouldn't have time to grow thirsty. I worked the chin valve, making the pressure low because I knew that pressure outdoors was quite low.

Peewee returned with what looked like ballet slippers for a baby elephant. She leaned close to my face plate and shouted, "They wear these. Can you get them on?" It seemed unlikely, but I forced them over my feet like badly fitting socks. I stood up and found that they improved traction; they were clumsy but not hard to walk in.

A minute later we were standing at the exit of the big room I had first seen. Its air-lock doors were closed now as a result of

the Mother Thing's other bomb, which she had placed to blow out the gate-valve panels in the tunnel beyond. The bomb in the feeding chamber had been planted by Peewee who had then ducked back to their room. I don't know whether the Mother Thing timed the two bombs to go off together, or triggered them by remote-control—nor did it matter; they had made a shambles of Wormface's fancy base.

Peewee knew how to waste air through the air lock. When the inner door opened I shouted, "Time?"

"Fourteen minutes." She held up her watch.

"Remember what I said, just stay here. If anything moves, blue-light it first and ask questions afterwards."

"I remember."

I stepped in and closed the inner door, found the valve in the outer door, waited for pressure to equalize.

The two or three minutes it took that big lock to bleed off I spent in glum thoughts. I didn't like leaving Peewee alone. I *thought* all wormfaces were dead, but I wasn't sure. We had searched hastily; one could have zigged when we zagged—they were so fast.

Besides that, Peewee had said, "I remember," when she should have said, "OK, Kip, I will." A slip of the tongue? That flea-hop-

ping mind made "slips" only when it wanted to. There is a world of difference between "Roger" and "Wilco."

Besides I was doing this for foolish motives. Mostly I was going out to recover the Mother Thing's body—folly, because after I brought her in, she would spoil. It would be kinder to leave her in natural deep-freeze.

But I couldn't bear that—it was cold out there and I couldn't leave her out in the cold. She had been so little and warm . . . so alive. I had to bring her in where she could get warm.

You're in bad shape when your emotions force you into acts which you know are foolish.

Worse still, I was doing this in a reckless rush because the Mother Thing had wanted that beacon set before a certain second, now only twelve minutes away, maybe ten. Well, I'd do it, but what sense was it? Say her home star is close by—oh, say it's Proxima Centauri and the wormfaces came from somewhere farther. Even if her beacon works—it still takes over four years for her S O S to reach her friends!

This might have been OK for the Mother Thing. I had an impression that she lived a very long time; waiting a few years for rescue might not bother her. But Peewee and I were not creatures of her sort. We'd be dead before that speed-of-light message

crawled to Proxima Centauri. I was glad that I had seen Peewee again, but I knew what was in store for us. Death, in days, weeks, or months at most, from running out of air, or water, or food—or a wormface ship might land before we died—which meant one unholy sabbat of a fight in which, if we were lucky, we would die quickly.

No matter how you figured, planting that beacon was merely “carrying out the deceased’s last wishes”—words you hear at funerals. Sentimental folly.

The outer door started to open. Ave, Mother Thing! *Nos morituri* . . .

It was *cold* out there, biting cold, even though I was not yet in the wind. The glow panels were still working and I could see that the tunnel was a mess; the the two dozen fractional-pressure stops had ruptured like eardrums. I wondered what sort of bomb could be hay-wired from stolen parts, kept small enough to conceal two in a body pouch along with some sort of radio rig, and nevertheless have force enough to blow out those panels. The blast had rattled my teeth, several hundred feet away in solid rock.

The first dozen panels were blown inwards. Had she set it off in the middle of the tunnel? A blast that big would fling her away like a feather! She must

have planted it there, then come inside and triggered it—then gone back through the lock just as I had. That was the only way I could see it.

It got colder every step. My feet weren’t too cold yet, those clumsy mukluks were OK; the wormfaces understood insulation. “Oscar, you got the fires burning?”

“Roaring, chum. It’s a cold night.”)

“You’re telling me!”

Just beyond the outermost burst panel, I found her.

She had sunk forward, as if too tired to go on. Her arms stretched in front of her and on the floor of the tunnel, not quite touched by her tiny fingers, was a small round box about the size ladies keep powder in on dressing tables.

Her face was composed and her eyes were open except that the nictitating membranes were drawn across as they had been when I had first seen her in the pasture back of our house, a few days or weeks or a thousand years ago. But she had been hurt then and looked it; now I half expected her to draw back those inner lids and sing a welcome.

I touched her.

She was hard as ice and much colder.

I blinked back tears and wasted not a moment. She wanted that little box placed a hundred yards out of the causeway and the bump on top twisted—and she wanted

it done in the next six or seven minutes. I scooped it up. "Righto, Mother Thing! On my way!"

("Get cracking, chum!")

["*Thank you, dear Kip . . .*"]

I don't believe in ghosts. I had heard her sing thank-you so many times that the notes echoed in my head.

A few feet away at the mouth of the tunnel, I stopped. The wind hit me and was so cold that the deathly chill in the tunnel seemed summery. I closed my eyes and counted 30 seconds to give time to adjust to starlight while I fumbled on the windward side of the tunnel at a slanting strut that anchored the causeway to the mountain, tied my safety line by passing it around the strut and snapping it back on itself. I had known that it was night outside, and I expected the causeway to stand out as a black ribbon against the white "snow" glittering under a skyful of stars. I thought I would be safer on that windswept way if I could see its edges—which I couldn't by headlamp unless I kept swinging my shoulders back and forth—clumsy and likely to throw me off balance or slow me down.

I had figured this carefully; I didn't regard this as a stroll in the garden—not at night, not on Pluto! So I counted 30 seconds and tied my line while waiting for eyes to adjust to starlight. I opened them.

And I couldn't see a darned thing!

Not a star. Not even the difference between sky and ground. My back was to the tunnel and the helmet shaded my face like a sunbonnet; I should have been able to see the walkway. Nothing.

I turned the helmet and saw something that accounted both for black sky and for the quake we had felt—an active volcano. It may have been five miles away or fifty, but I could not doubt what it was—a jagged, angry red scar low in the sky.

But I didn't stop to stare. I switched on the headlamp, splashed it on the righthand windward edge, and started a clumsy trot, keeping close to that side, so that if I stumbled I would have the entire road to recover in before the wind could sweep me off. That wind scared me. I kept the line coiled in my left hand and paid it out as I went, keeping it fairly taut. The coil felt stiff in my fingers.

The wind not only frightened me, it *hurt*. It was a cold so intense that it felt like flame. It burned and blasted, then numbed. My right side, getting the brunt of it, began to go and then my left side hurt more than the right.

I could no longer feel the line. I stopped, leaned forward and got the coil in the light from the headlamp—that thing needs fixing! the headlamp should swivel.

The coil was half gone, I had come a good 50 yards. I was depending on the rope to tell me; it was a 100-meter climbing line, so when I neared its end I would be as far out as the Mother Thing had wanted. Hurry, Kip.

("Get cracking, boy! It's cold out here.")

I stopped again. *Did I have the box?*

I couldn't feel it. But the headlamp showed my right hand clutched around it. Stay there, fingers! I hurried on, counting steps. One! Two! Three! Four! . . .

When I reached forty I stopped and glanced over the edge, saw that I was at the highest part where the road crossed the brook and remembered that it was about midway. That brook—methane, was it?—was frozen solid, and I knew that the night was cold.

There were a few loops of line on my left arm—close enough. I dropped the line, moved cautiously to the middle of the way, eased to my knees and left hand, and started to put the box down.

My fingers wouldn't unbend.

I forced them with my left hand, got the box out of my fist. That diabolical wind caught it and I barely saved it from rolling away. With both hands I set it carefully upright.

("Work your fingers, bud. Pound your hands together!")

I did so. I could tighten the muscles of my forearms, though it

was tearing agony to flex fingers. Clumsily steadying the box with my left hand, I groped for the little knob on top.

I couldn't feel it but it turned easily once I managed to close my fingers on it; I could see it turn.

It seemed to come to life, to purr. Perhaps I heard vibration, through gloves and up my suit, I certainly couldn't have felt it, not the shape my fingers were in. I hastily let go, got awkwardly to my feet and backed up, so that I could splash the headlamp on it without leaning over.

I was through, the Mother Thing's job was done, and (I hoped) before deadline. If I had had as much sense as the ordinary doorknob, I would have turned and hurried into the tunnel faster than I had come out.

But I was fascinated by what the box was doing.

It seemed to shake itself and three spidery little legs grew out the bottom. It raised up until it was standing on its own little tripod, about a foot high. It shook itself again and I thought the wind would blow it over. But the spidery legs splayed out, seemed to bite into the road surface, and it was rock-firm.

Something lifted and unfolded out the top.

It opened like a flower, until it was about eight inches across. A finger lifted (an antenna?), swung as if hunting, steadied and

pointed at the sky.

Then the beacon switched on. I'm sure that is what happened although all I saw was a flash of light—parasitic it must have been, for light alone would not have served even without that volcanic overcast. It was probably some harmless side effect of switching on an enormous pulse of power, something the Mother Thing hadn't had time, or perhaps equipment or materials, to eliminate or shield. It was about as bright as a peanut photoflash.

But I was looking at it. Polarizers can't work that fast. It blinded me.

I thought my headlamp had gone out, then I realized that I simply couldn't see through a big greenish-purple disc of dazzle.

("Take it easy, boy. It's just an after-image. Wait and it'll go away.")

"I can't wait! I'm freezing to death!"

("Hook the line with your forearm, where it's clipped to your belt. Pull on it.")

I did as Oscar told me, found the line, turned around, started to wind it on both forearms.

It shattered.

It did not break as you expect rope to break; it shattered like glass. I suppose that is what it was by then—glass, I mean. Nylon and glass are super-cooled liquids.

Now I know what that means.

But all I knew then was that my last link with life had gone. I couldn't see, I couldn't hear, I was all alone on a bare platform, billions of miles from home, and a wind out of the depths of a frozen hell was bleeding the last life out of a body I could barely feel—and where I *could* feel, it hurt like fire.

"Oscar!"

("I'm here, bud. You can make it. Now—can you see anything?")

"No!"

("Look for the mouth of the tunnel. It's got light in it. Switch off your headlamp. Sure, you can—it's just a toggle switch. Drag your hand back across the right side of our helmet.")

I did.

("See anything?")

"Not yet."

("Move your head. Try to catch it in the corner of your eye—the dazzle stays in front, you know. Well?")

"I caught something that time!"

("Reddish, wasn't it? Jagged, too. The volcano. Now we know which way we're facing. Turn slowly and catch the mouth of the tunnel as it goes by.")

Slowly was the only way I could turn. "There it is!"

("OK, you're headed home. Get down on your hands and knees and crab slowly to your left. Don't turn—because you want to hang onto that edge and *crawl*. Crawl toward the tunnel.")

I got down. I couldn't feel the surface with my hands but I felt pressure up my limbs, as if all four were artificial. I found the edge when my left hand slipped over it and I almost fell off. But I recovered. "Am I headed right?"

("Sure you are. You haven't turned. You've just moved sideways. Can you lift your head to see the tunnel?")

"Uh, not without standing up."

("Don't do that! Try the headlamp again. Maybe your eyes are OK now.")

I dragged my hand forward against the right side of the helmet. I must have hit the switch, for suddenly I saw a circle of light, blurred and cloudy in the middle. The edge of the walkway sliced it on the left.

("Good boy! No, don't get up; you're weak and dizzy and likely to fall. Start crawling. Count 'em. Three hundred ought to do it.")

I started crawling, counting.

"It's a long way, Oscar. You think we can make it?"

("Of course we can! You think I want to be left out *here*?")

"I'd be with you."

("Knock off the chatter. You'll make me lose count. Thirty-six . . . thirty-seven . . . thirty-eight—")

We crawled.

("That's a hundred. Now we double it. Hundred one . . . hundred two . . . hundred three—")

"I'm feeling better, Oscar. I

think it's getting warmer."

("WHAT?")

"I said I'm feeling a little warmer."

("You're not warmer, you blistering idiot! That's freeze-to-death you're feeling! Crawl faster! Work your chin valve. Get more air. Lemme hear that chin valve click!")

I was too tired to argue; I chinned the valve three or four times, felt a blast blistering my face.

("I'm stepping up the stroke. Warmer indeed! Hund'd *nine* . . . hund'd *ten* . . . hun'*leven* . . . hun'*twelve*—pick it up!")

At two hundred I said I would just have to rest.

("No, you don't!")

"But I've *got* to. Just a little while."

("Like that, uh? You know what happens. What's Peewee goin' to do? She's in there, waiting. She's already scared because you're late. What's she goin' to *do*? Answer me!")

"Uh . . . she's going to try to wear Tim's suit."

("Right! In case of duplicate answers the prize goes to the one postmarked first. How far will she get? You tell *me*.")

"Uh . . . to the mouth of the tunnel, I guess. Then the wind will get her."

("My opinion exactly. Then we'll have the whole family together. You, me, the Mother

Thing, Peewee. Cozy. A family of stiffs.”)

“But—”

(“So start slugging, brother. Slug . . . slug . . . slug . . . slug . . . tw’und’d five . . . tw’und’d six . . . tw’und’d sev’n—”

I don’t remember falling off. I don’t even know what that “snow” felt like. I just remember being glad that the dreadful counting was over and I could rest.

But Oscar wouldn’t let me. (“Kip! Kip! Get up! Climb back on the straight and narrow.”)

“Go ’way.”

(“I *can’t* go away. I wish I could. Right in front of you. Grab the edge and scramble up. It’s only a little farther now.”)

I managed to raise my head, saw the edge of the walkway in the light of my headlamp about two feet above my head. I sank back. “It’s too high,” I said listlessly. “Oscar, I think we’ve had it.”

He snorted. (“So? Who was it, just the other day, cussed out a little bitty girl who was too tired to get up? ‘Commander Comet,’ wasn’t it? Did I get the name right? The ‘Scourge of the Spaceways’ . . . the no-good lazy sky tramp. ‘Have Space Suit—Will Travel.’ Before you go to sleep, Commander, can I have your autograph? I’ve never met a real live space pirate before . . . one that goes around hijacking ships

and kidnaping little girls.”)

“That’s not fair!”

“OK, OK, I know when I’m not wanted. But just one thing before I leave: she’s got more guts in her little finger than you have in your whole body—you lying, fat, lazy swine! Goodby. Don’t wait up.”)

“Oscar! Don’t leave me!”

(“Eh? You want help?”)

“Yes!”

(“Well, if it’s too high to reach, grab your hammer and hook it over the edge. Pull yourself up.”)

I blinked. Maybe it would work. I reached down, decided I had the hammer even though I couldn’t feel it, got it loose. Using both hands I hooked it over the edge above me. I pulled.

That silly hammer broke just like the line. Tool steel—and it went to pieces as if it had been cast out of type slugs.

That made me mad. I heaved myself to a sitting position, got both elbows on the edge, and struggled and groaned and burst into fiery sweat—and rolled over onto the road surface.

(“That’s my boy! Never mind counting, just crawl toward the light!”)

The tunnel wavered in front of me. I couldn’t get my breath, so I kicked the chin valve.

Nothing happened.

“Oscar! The chin valve is stuck!” I tried again.

Oscar was very slow in answering. (“No, pal, the valve isn’t

stuck. Your air hoses have frozen up. I guess that last batch wasn't as dry as it could have been.")

"I haven't any air!"

Again he was slow. But he answered firmly. ("Yes, you have. You've got a whole suit full. Plenty for the few feet left.")

"I'll never make it."

("A few feet, only. There's the Mother Thing, right ahead of you. Keep moving.")

I raised my head and, sure enough, there she was. I kept crawling, while she got bigger and bigger. Finally I said, "Oscar . . . this is as far as I go."

("I'm afraid it is. I've let you down . . . but thanks for not leaving me outside there.")

"You didn't let me down . . . you were *swell*. I just didn't quite make it."

("I guess we both didn't quite make it . . . but we sure let 'em know that we tried! So long, partner.")

"So long. Hasta la vista, amigo!" I managed to crawl two short steps and collapsed with my head near the Mother Thing's head.

She was smiling. ["Hello, Kip my son."]

"I didn't . . . quite make it, Mother Thing. I'm sorry."

"Oh, but you did make it!"

"Huh?"

["Between us, we've both made it."]

I thought about that for a

long time. "And Oscar."

["And Oscar, of course."]

"And Peewee."

["And always Peewee. We've all made it. Now we can rest, dear."]

"G'night . . . Mother Thing."

It was a darn short rest. I was just closing my eyes, feeling warm and happy that the Mother Thing thought that I had done all right—when Peewee started shaking my shoulder. She touched helmets. "Kip! Kip! Get up. Please get up."

"Huh? Why?"

"Because I can't carry you! I tried, but I can't do it. You're just too big!"

I considered it. Of course she couldn't carry me—where did she get the silly notion that she could? I was twice her size. I'd carry her . . . just as soon as I caught my breath.

"Kip! Please get up." She was crying now, blubbing.

"Why, sure, honéy," I said gently, "if that's what you want." I tried and had a clumsy bad time of it. She almost picked me up, she helped a lot. Once up, she steadied me.

"Turn around. Walk."

She almost did carry me. She got her shoulders under my right arm and kept pushing. Every time we came to one of those blown-out panels she either helped me step over, or simply pushed me through and helped me up again.

At last we were in the lock and

she was bleeding air from inside to fill it. She had to let go of me and I sank down. She turned when the inner door opened, started to say something—then got my helmet off in a hurry.

I took a deep breath and got very dizzy and the lights dimmed.

She was looking at me. "You all right now?"

"Me? Sure! Why shouldn't I be?"

"Let me help you inside."

I couldn't see why, but she did help and I needed it. She sat me on the floor near the door with my back to the wall—I didn't want to lie down. "Kip, I was so scared!"

"Why?" I couldn't see what she was worried about. Hadn't the Mother Thing said that we had all done all right?

"Well, I was. I shouldn't have let you go out."

"But the beacon had to be set."

"Oh, but— You set it?"

"Of course. The Mother Thing was pleased."

"I'm sure she would have been," she said gravely.

"She was."

"Can I do anything? Can I help you out of your suit?"

"Uh . . . no, not yet. Could you find me a drink of water?"

"Right away!"

She came back and held it for me—I wasn't as thirsty as I had thought; it made me a bit ill. She watched me for some time, then

said, "Do you mind if I'm gone a little while? Will you be all right?"

"Me? Certainly." I didn't feel well, I was beginning to hurt, but there wasn't anything she could do.

"I won't be long." She began clamping her helmet and I noticed with detached interest that she was wearing her own suit—somehow I had had the impression that she had been wearing Tim's.

I saw her head for the lock and realized where she was going and why. I wanted to tell her that the Mother Thing would rather not be inside here, where she might . . . where she might—I didn't want to say "*spoil*" even to myself.

But Peewee was gone.

I don't think she was away more than five minutes. I had closed my eyes and I am not sure. I noticed the inner door open. Through it stepped Peewee, carrying the Mother Thing in her arms like a long piece of firewood. She didn't bend at all.

Peewee put the Mother Thing on the floor in the same position I had last seen her, then unclamped her helmet and bawled.

I couldn't get up. My legs hurt too much. And my arms. "Pee-wee . . . please, honey. It doesn't do any good."

She raised her head. "I'm all through. I won't cry any more."

And she didn't.

We sat there a long time. Pee-wee again offered to help me out of my suit, but when we tried it, I hurt so terribly, especially my hands and my feet, that I had to ask her to stop. She looked worried. "Kip . . . I'm afraid you froze them."

"Maybe. But there's nothing to do about it now." I winced and changed the subject. "Where did you find your suit?"

"Oh!" She looked indignant, then almost gay. "You'd *never* guess. Inside Jock's suit."

"No, I guess I wouldn't. 'The Purloined Letter.'"

"The what?"

"Nothing. I hadn't realized that old Wormface had a sense of humor."

Shortly after that we had another quake, a bad one. Chandeliers would have jounced if the place had had any and the floor heaved. Pee-wee squealed. "Oh! That was almost as bad as the last one."

"A lot worse, I'd say. The first little one wasn't anything."

"No, I mean the one while you were outside."

"Was there one then?"

"Didn't you feel it?"

"No." I tried to remember. "Maybe that was when I fell off in the snow."

"You fell off? Kip!"

"It was all right. Oscar helped me."

There was another ground

shock. I wouldn't have minded, only it shook me up and made me hurt worse. I finally came out of the fog enough to realize that I didn't have to hurt.

Let's see, medicine pills were on the right and the codeine dispenser was farthest back— "Pee-wee? Could I trouble you for some water again?"

"Of course!"

"I'm going to take codeine. It may make me sleepy. Do you mind?"

"You ought to sleep if you can. You need it."

"I suppose so. What time is it?"

She told me and I couldn't believe it. "You mean it's been more than twelve hours?"

"Huh? Since what?"

"Since this started."

"I don't understand, Kip." She stared at her watch. "It has been exactly an hour and a half since I found you—not quite two hours since the Mother Thing set off the bombs."

I couldn't believe that, either. But Pee-wee insisted that she was right.

The codeine made me feel much better and I was beginning to be drowsy, when Pee-wee said, "Kip, do you smell anything?"

I sniffed. "Something like kitchen matches?"

"That's what I mean. I think the pressure is dropping, too. Kip . . . I think I had better close your helmet—if you're going to sleep."

"All right. You close yours, too?"

"Yes. Uh, I don't think this place is tight any longer."

"You may be right." Between explosions and quakes, I didn't see how it could be. But, while I knew what that meant, I was too weary and sick—and getting too dreamy from the drug—to worry. Now, or a month from now—what did it matter? The Mother Thing had said everything was OK.

Peewee clamped us in, we checked radios, and she sat down facing me and the Mother Thing. She didn't say anything for a long time. Then I heard: "Peewee to Junebug—"

"I read you, Peewee."

"Kip? It's been fun, mostly. Hasn't it?"

"Huh?" I glanced up, saw that the dial said I had about four hours of air left. I had had to reduce pressure twice since we closed up, to match falling pressure in the room. "Yes, Peewee, it's been swell. I wouldn't have missed it for the world."

She sighed. "I just wanted to be sure you weren't blaming me. Now go to sleep."

I did almost go to sleep, when I saw Peewee jump up and my phones came to life. "Kip! Something's coming in the door!"

I came wide awake, realized what it meant. Why couldn't they have let us be? A few hours, anyhow? "Peewee. Don't panic. Move

to the far side of the door. You've got your blue-light gadget?"

"Yes."

"Yes."

"Pick them off as they come in."

"You've got to move, Kip! You're right where they will come!"

"I can't get up." I hadn't been able to move, not even my arms, for quite a while. "Use low power, then if you brush me, it won't matter. Do what I say! *Fast!*"

"Yes, Kip." She got where she could snipe at them sideways, raised her projector and waited.

The inner door opened, a figure came in. I saw Peewee start to nail it—and I called into my radio: "*Don't shoot!*"

But she was dropping the projector and running forward even as I shouted.

They were "mother thing" people.

It took six of them to carry me, only two to carry the Mother Thing. They sang to me soothingly all the time they were rigging a litter. I swallowed another codeine tablet before they lifted me, as even with their gentleness any movement hurt. It didn't take long to get me into their ship, for they had landed almost at the tunnel mouth, no doubt crushing the walkway—I hoped so.

Once I was safely inside Peewee opened my helmet and unzipped the front of my suit. "Kip!

down by hammering. It wasn't the right shade, either.

The books were too neat and clean; they had that candy-box look. I couldn't recognize the bindings. The over-all effect was mighty close, but details were not right.

["*I like this room,*"] the Mother Thing was singing. ["*It looks like you, Kip.*"]

"Mother Thing," I said weakly, "*how did you do it?*"

["*We asked you. And Peewee helped.*"]

I thought, "But Peewee has never seen my room either," then decided that Peewee had seen enough American homes to be a consulting expert. "Peewee is here?"

["*She'll be in shortly.*"]

With Peewee and the Mother Thing around things couldn't be too bad. Except—"Mother Thing, I can't move my arms and legs."

She put a tiny, warm hand on my forehead and leaned over me until her enormous, lemur-like eyes blanked out everything else. ["*You have been damaged. Now you are growing well. Do not worry.*"]

When the Mother Thing tells you not to worry, you don't. I didn't want to do handstands anyhow; I was satisfied to look into her eyes. You could sink into them, you could have dived in and swum around, "All right, Mother Thing." I remembered something

else. "Say . . . you *were* frozen? Weren't you?"

["Yes."]

"But—Look, when water freezes it ruptures living cells. Or so they say."

She answered primly, ["*My body would never permit that!*"]

"Well—" I thought about it. "Just don't dunk me in liquid air! I'm not built for it."

Again her song held roguish, indulgent humor. ["*We shall endeavor not to hurt you.*"] She straightened up and grew a little, swaying like a willow. ["*I sense Peewee.*"]

There was a knock—another discrepancy; it didn't sound like a knock on a light-weight interior door—and Peewee called out, "May I come in?" She didn't wait (I wondered if she ever did) but came on in. The bit I could see past her looked like our upper hall; they'd done a thorough job.

["*Come in, dear.*"]

"Sure, Peewee. You are in."

"Don't be captious."

"Look who's talking. Hi, kid!"

"Hi yourself."

The Mother Thing glided away. ["*Don't stay long, Peewee. You are not to tire him.*"]

"I won't, Mother Thing."

["*By, dears.*"]

I said, "What are the visiting hours in this ward?"

"When *she* says, of course." Peewee stood facing me, fists on hips. She was really clean for the

first time in our acquaintance—cheeks pink with scrubbing, hair fluffy. Maybe she would be pretty, in about ten years. She was dressed as always but her clothes were fresh, all buttons present, and tears invisibly mended.

"Well," she said, letting out her breath, "I guess you're going to be worth keeping, after all."

"Me? I'm in the pink. How about yourself?"

She wrinkled her nose. "A little frost nip. Nothing. But you were a mess."

"I was?"

"I can't use adequate language without being what Mama calls 'unladylike.'"

"Oh, we wouldn't want you to be *that*."

"Don't be sarcastic. You don't do it well."

"You won't let me practice on you?"

She started to make a Peewee retort, stopped suddenly, smiled and came close. For a nervous second I thought she was going to kiss me. But she just patted the bed clothes and said solemnly, "You bet you can, Kip. You can be sarcastic, or nasty, or mean, or scold me, or anything, and I won't let out a peep. Why, I'll bet you could even talk back to the Mother Thing."

I couldn't imagine wanting to. I said, "Take it easy, Peewee. Your halo is showing."

"I'd have one if it weren't for

you. Or flunked my test for it, more likely."

"So? I seem to remember somebody about your size lugging me indoors almost piggy-back. How about that?"

She wriggled. "That wasn't anything. You set the beacon. That was *everything*."

"Uh, each to his own opinion. It was cold out there." I changed the subject; it was embarrassing us. Mention of the beacon reminded me of something else. "Peewee? Where are we?"

"Huh? In the Mother Thing's home, of course." She looked around and said, "Oh, I forgot. Kip, this isn't really your—"

"I know," I said impatiently. "It's a fake. Anybody can see that."

"They can?" She looked crestfallen. "I thought we had done a perfect job."

"It's an incredibly good job. I don't see how you did it."

"Oh, your memory is most detailed. You must have a camera eye."

—and I must have spilled my guts, too! I added to myself. I wondered what else I had said—with Peewee listening. I was afraid to ask; a fellow ought to have privacy.

"But it's still a fake," I went on. "I know we're in the Mother Thing's home. But *where's that*?"

"Oh." She looked round-eyed. "I told you. Maybe you don't

remember—you were sleepy.”

“I remember,” I said slowly, “something. But it didn’t make sense. I thought you said we were going to *Vega*.”

“Well, I suppose the catalogs will list it as *Vega Four*. But they call it—” She threw back her head and vocalized; it recalled to me the cockcrow theme in *Le Coq d’Or*. “—but I couldn’t say *that*. So I told you *Vega*, which is close enough.”

I tried again to sit up, failed. “You mean to stand there and tell me we’re on *Vega*? I mean, ‘a *Vegan planet*?’”

“Well, you haven’t asked me to sit down.”

I ignored the *Peeweeism*. I looked at “sunlight” pouring through the window. “That light is from *Vega*?”

“That stuff? That’s artificial sunlight. If they had used real, bright, *Vega* light, it would look ghastly. Like a bare arc light. *Vega* is ‘way up the Russell diagram, you know.”

“It is?” I didn’t know the spectrum of *Vega*; I had never expected to *need* to know it.

“Oh, yes! You be careful, Kip—when you’re up, I mean. In ten seconds you can get more burn than all winter in Key West—and ten minutes would kill you.”

I seemed to have a gift for winding up in difficult climates. What star class was *Vega*? “A,” maybe? Probably “B.” All I know

was that it was big and bright, bigger than the Sun, and looked pretty set in *Lyra*.

But *where* was it? How in the name of Einstein did we get here? “*Peewee*? How far is *Vega*? No, I mean, ‘How far is the Sun?’ You would happen to know?”

“Of course,” she said scornfully. “Twenty-seven light-years.”

Great Galloping Gorillas! “*Peewee*—get that slide rule. You know how to push one? I don’t seem to have the use of my hands.”

She looked uneasy. “Uh, what do you want it for?”

“I want to see what that comes to in miles.”

“Oh. I’ll figure it. No need for a slide rule.”

“A slipstick is faster and more accurate. Look, if you don’t know how to use one, don’t be ashamed—I didn’t, at your age. I’ll show you.”

“Of course I can use one!” she said indignantly. “You think I’m a stupe? But I’ll work it out.” Her lips moved silently. “One point five nine times ten to the fourteenth miles.”

I had done that *Proxima Centauri* problem recently; I remembered the miles in a light-year and did a rough check in my head—uh, call it six times twenty-five make a hundred and fifty—and where was the decimal point? “Your answer sounds about right.” 159,000,000,000,000 weary miles!

Too many zeroes for comfort. "Of course I'm right!" she retorted. "I'm *always* right."

"Goodness me! The handy-dandy pocket encyclopedia."

She blushed. "I can't help being a genius."

Which left her wide open and I was about to rub her nose in it—when I saw how unhappy she looked.

I remembered hearing Dad say: "Some people insist that 'mediocre' is better than 'best.' They delight in clipping wings because they themselves can't fly. They despise brains because they have none. Pfah!"

"I'm sorry, Peewee," I said humbly. "I know you can't. And I can't help not being one . . . any more than you can help being little, or I can help being big."

She relaxed and looked solemn. "I guess I was being a show-off again." She twisted a button. "Or maybe I assumed that you understand me—like Daddy."

"I feel complimented. I doubt if I do—but from now on I'll try."

She went on worrying the button. "You're pretty smart yourself, Kip. You know that, don't you?"

I grinned. "If I were smart, would I be *here*? All thumbs and my ears rub together. Look, honey, would you mind if we checked you on the slide rule? I'm really interested." Twenty-seven light-years—why, you wouldn't be able to see the Sun.

It isn't any great shakes as a star.

But I had made her uneasy again. "Uh, Kip, that isn't much of a slide rule."

"What? Why, that's the best that money can—"

"Kip, please! It's part of the desk. It's not a slide rule."

"Huh?" I looked sheepish. "I forgot. Uh, I suppose that hall out there doesn't go very far?"

"Just what you can see. Kip, the slide rule would have been real—if we had had time enough. They understand logarithms. Oh, indeed they do!"

That was bothering me—"time enough" I mean. "Peewee, how long did it take us to get here?" Twenty-seven light-years! Even at speed-of-light . . . well, maybe the Einstein business would make it seem like a quick trip to me—but not to Centerville. Dad could be dead! Dad was older than Mother, old enough to be my grandfather, really. Another twenty-seven years back— Why, that would make him well over a hundred. Even Mother might be dead.

"Time to get here? Why, it didn't take *any*."

"No, no. I know it feels that way. You're not any older, I'm still laid up by frostbite. But it took at least twenty-seven years. Didn't it?"

"What are you talking about, Kip?"

"The relativity equations, of course. You've heard of them?"

"Oh, *those!* Certainly. But they don't apply. It didn't take *time*. Oh, fifteen minutes to get out of Pluto's atmosphere, about the same to cope with the atmosphere here. But otherwise, *ph!* Zero."

"At the speed of light you would think so."

"No, Kip." She frowned, then her face lighted up. "How long was it from the time you set the beacon till they rescued us?"

"Huh?" It hit me. Dad wasn't dead! Mother wouldn't even have gray hair. "Maybe an hour."

"A little over. It would have been less if they had had a ship ready . . . then they might have found you in the tunnel instead of me. No time for the message to reach here. Half an hour frittered away getting a ship ready—the Mother Thing was *vexed*. I hadn't known she could be. You see, a ship is supposed to be *ready*."

"Any time she wants one?"

"Any and all the time—the Mother Thing is *important*. Another half hour in atmosphere maneuvering—and that's all. *Real* time. None of those funny contractions."

I tried to soak it up. They take an hour to go twenty-seven light-years—and get bawled out for dallying. Dr. Einstein must be known as "Whirligig Albert" among his cemetery neighbors. "But *how?*"

"Kip, do you know any geom-

etry? I don't mean Euclid—I mean *geometry*."

"Mmm . . . I've fiddled with open and closed curved spaces—and I've read Dr. Bell's popular books. But you couldn't say I know any geometry."

"At least you won't boggle at the idea that a short line is not necessarily the straightest distance between two points." She made motions as if squeezing a grapefruit in both hands. "Because it's not. Kip—it all *touches*. You could put it in a bucket. In a thimble if you folded it so that spins matched."

I had a dizzying picture of a universe compressed into a tea cup, nucleons and electrons packed solidly—really *solid* and not the thin mathematical ghost that even the uranium nucleus is said to be. Something like the "primal atom" that some cosmogonists use to explain the expanding universe. Well, maybe it's both—packed and expanding. Like the "wavicle" paradox. A particle isn't a wave and a wave can't be a particle—yet everything is *both*. If you believe in wavicles, you can believe in anything—and if you don't, then don't bother to believe at all. Not even in yourself, because that's what you are—wavicles. "How many dimensions?" I said weakly.

"How many would you like?"

"Me? Uh, twenty, maybe. Four more for each of the first four, to

give some looseness on the corners.

"Twenty isn't a starter. I don't know, -Kip; I don't know geometry, either—I just thought I did. So I've pestered them."

"The Mother Thing?"

"Her? Oh, heavens, no! She doesn't know geometry. Just enough to pilot a ship in and out of the folds."

"Only that much?" I should have stuck to advanced finger-painting and never let Dad lure me into trying for an education. There isn't any end—the more you learn, the more you need to learn. "Peewee, you knew what that beacon was for, didn't you?"

"Me?" She looked innocent. "Well . . . yes."

"You knew we were going to Vega."

"Well . . . if the beacon worked. If it was set in time."

"Now the prize question. Why didn't you tell me?"

"Well . . ." Peewee was going to twist that button off. "I wasn't sure how much math you knew and—you might have gone all masculine and common-sensical and father-knows-best. Would you have believed me?"

("I told Orville and I told Wilbur and now I'm telling you—that contraption will never work!") "Maybe not, Peewee. But next time you're tempted not to tell me something 'for my own good,' will you take a chance that

I'm not wedded to my own ignorance? I know I'm not a genius but I'll try to keep my mind open—and I might be able to help, if I knew what you were up to. Quit twisting that button."

She let go hastily. "Yes, Kip. I'll remember."

"Thanks. Another thing is fretting me. I was pretty sick?"

"Huh? You, certainly were!"

"All right. They've got these, uh, 'fold ships' that go anywhere in no time. Why didn't you ask them to bounce me home and pop me into a hospital?"

She hesitated. "How do you feel?"

"Huh? I feel fine. Except that I seem to be under spinal anesthesia, or something."

"Or something," she agreed. "But you feel as if you are getting well?"

"Shucks, I feel *well*."

"You aren't. But you're going to be." She looked at me closely. "Shall I put it bluntly, Kip?"

"Go ahead."

"If they had taken you to Earth to the best hospital we have, you'd be a 'basket case.' Understand me? No arms, no legs. As it is, you are getting completely well. No amputations, not even a toe."

I think the Mother Thing had prepared me. I simply said, "You're sure?"

"Sure both. You're going to be *all right*." Her face screwed up. "Oh, you were a mess! I *saw*."

"Pretty bad?"

"Awful. I have nightmares."

"They shouldn't have let you look."

"They couldn't stop me. I was next of kin."

"Huh? You told them you were my sister or something?"

"What? I *am* your next of kin."

I was about to say she was cockeyed when I tripped over my tongue. We were the only humans for a hundred and sixty trillion miles. As usual, Peewee was right.

"So I had to grant permission," she went on.

"For what? What did they do to me?"

"Uh, first they popped you into liquid helium. They left you there and the past month they have been using me as a guinea pig. Then, three days ago—three of ours—they thawed you out and got to work. You've been getting well ever since."

"What shape am I in now?"

"Uh . . . well, you're growing back. Kip, this isn't a bed. It just looks like it."

"What is it, then?"

"We don't have a name for it and the tune is pitched too high for me. But everything from here on down"—she patted the spread—"on into the room below does things for you. You're wired like a hi-fi nut's basement."

"I'd like to see it."

"I'm afraid you can't. You don't

know, Kip. They had to cut your space suit off."

I felt more emotion at that than I had at hearing what a mess I had been. "Huh? Where is Oscar? Did they ruin him? My space suit, I mean."

"I know what you mean. Every time you're delirious you talk to 'Oscar'—and you answer back, too. Sometimes I think you're schizoid, Kip."

"You've mixed your terms, runt—that'd make me a split personality. All right, but you're a paranoid yourself."

"Oh, I've known that for a long time. But I'm a very well adjusted one. You want to see Oscar? The Mother Thing said that you would want him near when you woke up." She opened the closet.

"Hey! You said he was all cut up!"

"Oh, they repaired him. Good as new. A little better than new."

[*"Time, dear! Remember what I said."*]

"Coming, Mother Thing! 'By, Kip, I'll be back soon, and real often."

"OK. Leave the closet open so I can see Oscar."

Peewee did come back, but not "real often." I wasn't offended, not much. She had a thousand interesting and "educational" things to poke her ubiquitous nose into, all new and fascinating—she was

as busy as a pup chewing slippers. She ran our hosts ragged. But I wasn't bored. I was getting well, a full-time job and not boring if you are happy—which I was.

I didn't see the Mother Thing often: I began to realize that she had work of her own to do—even though she came to see me if I asked her, with never more than an hour's delay, and never seemed in a hurry to leave.

She wasn't my doctor, nor my nurse. Instead I had a staff of veterinarians who were alert to supervise every heart beat. They didn't come in unless I asked them to (a whisper was as good as a shout) but I soon realized that "my" room was bugged and telemetered like a ship in flight test—and my "bed" was a mass of machinery, gear that bore the relation to our own "mechanical hearts" and "mechanical lungs" and "mechanical kidneys" that a Lockheed ultrasonic courier does to a baby buggy.

I never saw that gear (they never lifted the spread, unless it was while I slept), but I know what they were doing. They were encouraging my body to repair itself—not scar tissue but the way it had been. Any lobster can do this and starfish do it so well that you can chop them to bits and wind up with a thousand brand-new starfish.

This is a trick any animal should do, since its gene pat-

tern is in every cell. But a few million years ago we lost it. Everybody knows that science is trying to recapture it; you see articles—glibly optimistic ones in *READER'S DIGEST*, discouraged ones in *The Scientific Monthly*, wildly wrong ones in magazines whose "science editors" seem to have received their training writing horror movies. But we're working on it. Some day, if anybody dies an accidental death, it will be because he bled to death on the way to the hospital.

Here I was with a perfect chance to find out about it—and I didn't.

I tried. Although I was unworried by what they were doing (the Mother Thing had told me not to worry and every time she visited me she looked in my eyes and repeated the injunction), nevertheless like Peewee, I like to know.

Pick a savage so far back in the jungle that they don't even have installment-plan buying. Say he has an I.Q. of 190 and Peewee's yen to understand. Dump him into Brookhaven Atomic Laboratories. How much will he learn? With all possible help?

He'll learn which corridors lead to what rooms and he'll learn that a purple trefoil means: "Danger!"

That's all. Not because he *can't*; remember he's a supergenius—but he needs twenty years' schooling before he can ask the right

questions and understand the answers.

I asked questions and always got answers and formed notions. But I'm not going to record them; they are as confused and contradictory as the notions a savage would form about design and operation of atomic equipment. As they say in radio, when noise level reaches a certain value, no information is transmitted. All I got was "noise."

Some of it was literally "noise." I'd ask a question and one of the therapists would answer. I would understand part, then as it reached the key point, I would hear nothing but bird songs. Even with the Mother Thing as an interpreter, the parts I had no background for would turn out to be a canary's cheerful prattle.

Hold onto your seats; I'm going to explain something I don't understand: how Peewee and I could talk with the Mother Thing even though her mouth could not shape English and we couldn't sing the way she did and had not studied her language. The Vegans— (I'll call them "Vegans" the way we might be called "Solarians"; their real name sounds like a wind chime in a breeze. The Mother Thing had a real name, too, but I'm not a coloratura soprano. Peewee used it when she wanted to wheedle her—fat lot of good it did her.) The Vegans have a supreme talent to

understand, to put themselves in the other person's shoes I don't think it was telepathy, or I wouldn't have gotten so many wrong numbers. Call it empathy.

But they have it in various degrees, just as all of us drive cars but only a few are fit to be racing drivers. The Mother Thing had it the way Novaës understands a piano. I once read about an actress who could use Italian so effectively to a person who did not understand Italian that she always made herself understood. Her name was Duce. No, a "*deuce*" is a dictator. Something like that. She must have had what the Mother Thing had.

The first words I had with the Mother Thing were things like "*hello*" and "*goodby*" and "*thank you*" and "*where are we going?*" She could project her meaning with those—shucks, you can talk to a strange dog that much. Later I began to understand her speech as *speech*. She picked up meanings of English words even faster; she had this great talent, and she and Peewee had talked for days while they were prisoners together.

But while this is easy for "*you're welcome*" and "*I'm hungry*" and "*let's hurry*," it gets harder for ideas like "*heterodyning*" and "*amino acid*" even when both are familiar with the concept. When one party doesn't even have the concept, it breaks down.

That's the trouble I had understanding those veterinarians. If we had all spoken English I still would not have understood.

An oscillating circuit sending out a radio signal produces dead silence unless there is another circuit capable of oscillating in the same way to receive it. I wasn't on the right frequency.

Nevertheless I understood them when the talk was not highbrow. They were nice people; they talked and laughed a lot and seemed to like each other. I had trouble telling them apart, except the Mother Thing. (I learned that the only marked difference to them between Peewee and me was that I was ill and she wasn't.) They had no trouble telling each other apart; their conversations were interlarded with music names, until you felt that you were caught in *Peter and the Wolf* or a Wagnerian opera. They even had a leitmotif for me. Their talk was cheerful and gay, like the sounds of a bright summer dawn.

The next time I meet a canary I'll know what he is saying even if he doesn't.

I picked up some of this from Peewee—a hospital bed is not a good place from which to study a planet. Vega IV has Earth-surface gravity, near enough, with an oxygen, carbon dioxide, and water life cycle. The planet would not suit humans, not only because

the noonday "sun" would strike you dead with its jolt of ultraviolet but also the air has poisonous amounts of ozone; a trace of ozone is stimulating but a trifle more—well, you might as well sniff prussic acid. There was something else, too, nitrous oxide I think, which was ungood for humans if breathed too long. My quarters were air-conditioned; the Vegans could breathe what I used but they considered it tasteless.

I learned a bit as a by-product of something else; the Mother Thing asked me to dictate how I got mixed up in these things. When I finished, she asked me to dictate everything I knew about Earth, its history, and how we work and live together. This is a tall order—I'm not still dictating because I found out I don't know much. Take ancient Babylonia—how is it related to early Egyptian civilizations? I had only vague notions.

Maybe Peewee did better, since she remembers everything she has heard or read or seen the way Dad does. But they probably didn't get her to hold still long, whereas I had to. The Mother Thing wanted this for the reasons we study Australian aborigines and also as a record of our language. There was another reason, too.

The job wasn't easy but there was a Vegan to help me whenever

I felt like it, willing to stop if I tired. Call him Professor Josephus Egghead; "*Professor*" is close enough and his name can't be spelled. I called him Joe and he called me the leitmotif that meant "*Clifford Russell, the monster with the frostbite.*" Joe had almost as much gift for understanding as the Mother Thing. But how do you put over ideas like "*tariffs*" and "*kings*" to a person whose people have never had either? The English words were just noise.

But Joe knew histories of many peoples and planets and could call up scenes, in moving stereo and color, until we agreed on what I meant. We jogged along, with me dictating to a silvery ball floating near my mouth and with Joe curled up like a cat on a platform raised to my level, while he dictated to another microphone, making running notes on what I said. His mike had a gimmick that made it a hush-phone; I did not hear him unless he spoke to me.

Then we would stumble. Joe would stop and throw me a sample scene, his best guess of what I meant. The pictures appeared in the air, positioned for my comfort—if I turned my head, the picture moved to accommodate me. The pix were color-stereo-television with perfect life and sharpness—well, give us another twenty years and we'll have them as realistic. It was a good

trick to have the projector concealed and to force images to appear as if they were hanging in air, but those are just gimmicks of stereo optics; we can do them any time we really want to—after all, you can pack a life-like view of the Grand Canyon into a viewer you hold in your hand.

The thing that did impress me was the organization behind it. I asked Joe about it. He sang to his microphone and we went on a galloping tour of their "Congressional Library."

Dad claims that library science is the foundation of all sciences just as math is the key, and that we will survive or founder, depending on how well the librarians do their jobs. Librarians didn't look glamorous to me but maybe Dad had hit on a not very obvious truth.

This "library" had hundreds, maybe thousands, of Vegans viewing pictures and listening to sound tracks, each with a silvery sphere in front of him. Joe said they were "telling the memory." This was equivalent to typing a card for a library's catalog, except that the result was more like a memory path in brain cells—nine tenths of that building was an electronic brain.

I spotted a triangular sign like the costume jewelry worn by the Mother Thing, but the picture jumped quickly to something else. Joe also wore one (and others did

not) but I did not get around to asking about it, as the sight of that incredible “library” brought up the word “*cybernetics*” and we went on a detour. I decided later that it might be a lodge pin, or like a Phi Beta Kappa key—the Mother Thing was smart even for a Vegan and Joe was not far behind.

Whenever Joe was sure that he understood some English word, he would wriggle with delight like a puppy being tickled. He was very dignified, but this is not undignified for a Vegan. Their bodies are so fluid and mobile that they smile and frown with the whole works. A Vegan holding perfectly still is either displeased or extremely worried.

The sessions with Joe let me tour places from my bed. The difference between “*primary school*” and “*University*” caused me to be shown examples. A “*kindergarten*” looked like an adult Vegan being overwhelmed by babies; it had the innocent rowdiness of a collie pup stepping on his brother’s face to reach the milk dish. But the “*University*” was a place of quiet beauty, strange-looking trees and plants and flowers among buildings of surrealistic charm unlike any architecture I have ever seen—I suppose I would have been flabbergasted if they had looked familiar. Parabolas were used a lot and I think all the “straight” lines had that swelling the Greeks

called “*entasis*”—delicate grace with strength.

Joe showed up one day simply undulating with pleasure. He had another silvery ball, larger than the other two. He placed it in front of me, then sang to his own. [*“I want you to hear this, Kipl!”*]

As soon as he ceased the larger sphere spoke in English: “I want you to hear this, Kipl!”

Squirring with delight, Joe swapped spheres and told me to say something.

“What do you want me to say?” I asked.

[*“What do you want me to say?”*] the larger sphere sang in Vegan.

That was my last session with Prof Joe.

Despite unstinting help, despite the Mother Thing’s ability to make herself understood, I was like the Army mule at West Point: an honorary member of the student body but not prepared for the curriculum. I never did understand their government. Oh, they *had* government, but it wasn’t any system I’ve heard of. Joe knew about democracies and representation and voting and courts of law; he could fish up examples from many planets. He felt that democracy was “a very good system, for beginners.” It would have sounded patronizing, except that is not one of their faults.

I never met one of their young. Joe explained that children should not see "strange creatures" until they had learned to feel understanding sympathy. That would have offended me if I hadn't been learning some "understanding sympathy" myself. Matter of fact, if a human ten-year-old saw a Vegan, he would either run, or poke it with a stick.

I tried to learn about their government from the Mother Thing, in particular how they kept the peace—laws, crimes, punishments, traffic regulations, etc.

It was as near to flat failure as I ever had with her. She pondered a long time, then answered: [*"How could one possibly act against one's own nature?"*]

I guess their worst vice was that they didn't have any. This can be tiresome.

The medical staff were interested in the drugs in Oscar's helmet—like our interest in a witch doctor's herbs, but that is not idle interest: remember digitalis and curare.

I told them what each drug did and in most cases I knew the Geneva name as well as the commercial one. I knew that codeine was derived from opium, and opium from poppies. I knew that dexedrine was a sulphate but that was all. Organic chemistry and biochemistry are not easy even

with no language trouble. We got together on what a benzene ring was, Peewee drawing it and sticking in her two dollars worth, and we managed to agree on "*element*," "*isotope*," "*half life*," and the periodic table. I should have drawn structural formulas, using Peewee's hands—but neither of us had the slightest idea of the structural formula for codeine and couldn't do it even when supplied with kindergarten toys which stuck together only in the valences of the elements they represented.

Peewee had fun, though. They may not have learned much from her; she learned a lot from them.

I don't know when I became aware that the Mother Thing was not, or wasn't quite, a female. But it didn't matter; being a mother is an attitude, not a biological relation.

If Noah launched his ark on Vega IV, the animals would come in by twelves. That makes things complicated. But a "mother thing" is one who takes care of others. I am not sure that all mother things were the same gender; it may have been a matter of temperament.

I met one "father thing." You might call him "governor" or "mayor" but "parish priest" or "scoutmaster" is closer, except that his prestige dominated a continent. He breezed in during a session with Joe, stayed five minutes, urged Joe to do a good

job, told me to be a good boy and get well, and left, all without hurrying. He filled me with the warm self-reliance that Dad does—I didn't need to be told that he was a "father thing." His visit had a flavor of "royalty visiting the wounded" without being condescending—no doubt it was hard to work me into a busy schedule.

Joe neither mothered me nor fathered me; he taught me and studied me—"a professor thing."

Peewee showed up one day full of bubbles. She posed like a mannequin. "Do you like my new spring outfit?"

She was wearing silvery tights, plus a little hump like a knapsack. She looked cute but not glamorous, for she was built like two sticks and this get-up emphasized it.

"Very fancy," I said. "Are you learning to be an acrobat?"

"Don't be silly, Kip; it's my new space suit—a *real* one."

I glanced at Oscar, big and bulky and filling the closet, and said privately, "Hear that, chum?"

("It takes all kinds to make a world.")

"Your helmet won't fit it, will it?"

She giggled. "I'm wearing it."

"You are? The Emperor's New Clothes?"

"Pretty close. Kip, disconnect your prejudices and listen. This is like the Mother Thing's suit

except that it's tailored for me. My old suit wasn't much good, and that *cold* cold about finished it. But you'll be amazed at this one. Take the helmet. It's there, only you can't see it. It's a field. Gas can't go in or out." She came close. "Slap me."

"With what?"

"Oh. I forgot. Kip, you've got to get well and up off that bed. I want to take you for a walk."

"I'm in favor. They tell me it won't be long now."

"It had better not be. Here, I'll show you." She hauled off and slapped herself. Her hand smacked into something inches from her face.

"Now watch," she went on. She moved her hand very slowly; it sank through the barrier, she thumbed her nose at me and giggled.

This impressed me—a space suit you could reach into! Why, I would have been able to give Peewee water and dexedrine and sugar pills when she needed them. "I'll be darned! What does it?"

"A power pack on my back, under the air tank. The tank is good for a week, too, and hoses can't give trouble because there aren't any."

"Uh, suppose you blow a fuse. There you are, with a lungful of vacuum."

"The Mother Thing says that can't happen."

Hmmm. I had never known the Mother Thing to be wrong when she made a flat statement.

"That's not all," Peewee went on. "It feels like skin, the joints aren't clumsy, and you're never hot or cold. It's like street clothes."

"Uh, you risk a bad sunburn, don't you? Unhealthy, you tell me. Unhealthy even on the Moon."

"Oh, no! The field polarizes. That's what the field is, sort of. Kip, get them to make you one—we'll go places!"

I glanced at Oscar. ("Please yourself, pal," he said distantly. "I'm not the jealous type.")

"Uh, Peewee, I'll stick to one I understand. But I'd like to examine that monkey suit of yours."

"Monkey suit indeed!"

I woke up one morning, turned over, and realized that I was hungry.

Then I sat up with a jerk. I had *turned over in bed*.

I had been warned to expect it. The "bed" was a bed and my body was back under my control. Furthermore, I was hungry and I hadn't been hungry the whole time I had been on Vega IV. Whatever that machinery was, it included a way to nourish me without eating.

But I didn't stop to enjoy the luxury of hunger; it was too wonderful to be a body again, not just a head. I got out of bed, was suddenly dizzy, recovered and

grinned. Hands! Feet!

I examined those wonderful things. They were unchanged and un hurt.

Then I looked more closely. No, not quite unchanged.

I had had a scar on my left shin where I had been spiked in a close play at second; it was gone. I once had "Mother" tattooed on my left forearm at a carnival. Mother had been distressed and Dad disgusted, but he had said to leave it as a reminder not to be a witling. It was gone.

There was not a callus on hand or foot.

I used to bite my nails. My nails were a bit long but perfect. I had lost the nail from my right little toe years ago through a slip with a hatchet. It was back.

I looked hastily for my appendectomy scar—found it and felt relieved. If it had been missing, I would have wondered if I was me.

There was a mirror over the chest of drawers. It showed me with enough hair to warrant a guitar (I wear a crew cut) but somebody had shaved me.

On the chest was a dollar and 67 cents, a mechanical pencil, a sheet of paper, my watch, and a handkerchief. The watch was running. The dollar bill, the paper, and the handkerchief had been laundered.

My clothes, spandy clean and

invisibly repaired, were on the desk. The socks weren't mine; the material was more like felt, if you will imagine felted material no thicker than Kleenex which stretches instead of tearing. On the floor were tennis shoes, like Peewee's even to a "U.S. Rubber" trademark, but in my size. The uppers were heavier felted material. I got dressed.

I was admiring the result when Peewee kicked the door. "Anybody home?" She came in, bearing a tray. "Want breakfast?"

"Peewee! Look at me!"

She did. "Not bad," she admitted, "for an ape. You need a haircut."

"Yes, but isn't it *wonderful*! I'm all together again!"

"You never were apart," she answered, "except in spots—I've had daily reports. Where do you want this?" She put the tray on the desk.

"Peewee," I asked, rather hurt, "don't you care that I'm well?"

"Of course I do. Why do you think I made 'em let me carry in your breakfast? But I knew last night that they were going to uncork you. Who do you think cut your nails and shaved you? That'll be a dollar, please. Shaves have gone up."

I got that tired dollar.

She didn't take it. "Aw, can't you take a joke?"

"Neither a borrower nor a lender be."

"Polonius. He was a stupid old bore. Honest, Kip, I wouldn't take your last dollar."

"Now who can't take a joke?"

"Oh, eat your breakfast. That purple juice," she said, "tastes like orange juice—it's very nice. The stuff that looks like scrambled eggs is a fair substitute and I had 'em color it yellow—the eggs here are *dreadful*, which wouldn't surprise you if you knew where they get them. The buttery stuff is vegetable fat and I had them color it, too. The bread is bread, I toasted it myself. The salt is salt and it surprises them that we eat it—they think it's poison. Go ahead; I've guinea-pigged everything. No coffee."

"I won't miss it."

"I never touch the stuff—I'm trying to grow. Eat. Your sugar count has been allowed to drop so that you will enjoy it."

The aroma was wonderful. "Where's *your* breakfast?"

"I ate hours ago. I'll watch and swallow when you do."

The tastes were odd but it was just what the doctor ordered—literally, I suppose. I never enjoyed a meal so much.

Presently I slowed down to say, "Knife and fork? Spoons?"

"The only ones on—" She vocalized the planet's name. "I got tired of fingers and I play hob using what they use. So I drew pictures. This set is mine but we'll order more."

There was even a napkin, more felted stuff. The water tasted distilled and not aerated. I didn't mind. "Peewee, how did you shave me? Not even a nick."

"Little gismo that beats a razor all hollow. I don't know what they use it for, but if you could patent it, you'd make a fortune. Aren't you going to finish that toast?"

"Uh—" I had thought that I could eat the tray. "No, I'm full."

"Then I will." She used it to mop up the "butter," then announced, "I'm off!"

"Where?"

"To suit up. I'm going to take you for a walk!" She was gone.

The hall outside did not imitate ours where it could not be seen from the bed, but a door to the left was a bathroom, just where it should have been. No attempt had been made to make it look like the one at home, and valving and lighting and such were typically Vegan. But everything worked.

Peewee returned while I was checking Oscar. If they had cut him off me, they had done a marvelous job of repairing; even the places I had patched no longer showed. He had been cleaned so thoroughly that there was no odor inside. He had three hours of air and seemed OK in every way. "You're in good shape, partner."

("In the pink! The service is excellent here.")

"So I've noticed." I looked up and saw Peewee; she was already in her "spring outfit."

"Peewee, do we need space suits just for a walk?"

"No. You could get by with a respirator, sun glasses, and a sun shade."

"You've convinced me. Say, where's Madame Pompadour? How do you get her inside that suit?"

"No trouble at all, she just bulges a little. But I left her in my room and told her to behave herself."

"Will she?"

"Probably not. She takes after me."

"Where is your room?"

"Next door. This is the only part of the house which is Earth-conditioned."

I started to suit up. "Say, has that fancy suit got a radio?"

"All that yours has and then some. Did you notice the change in Oscar?"

"Hub? What? I saw that he was repaired and cleaned up. What else have they done?"

"Just a little thing. One more click on the switch that changes antennas and you can talk to people around you who aren't wearing radios without shouting."

"I didn't see a speaker."

"They don't believe in making everything big and bulky."

As we passed Peewee's room I glanced in. It was not decorated

Vegan style; I had seen Vegan interiors through stereo. Nor was it a copy of her own room—not if her parents were sensible. I don't know what to call it—"Moorish harem" style, perhaps, as conceived by Mad King Ludwig, with a dash of Disneyland.

I did not comment. I had a hunch that Peewee had been given a room "just like her own" because I had one; that fitted the Mother Thing's behavior—but Peewee had seen a golden chance to let her overfertile imagination run wild. I doubt if she fooled the Mother Thing one split second. She had probably let that indulgent overtone come into her song and had given Peewee what she wanted.

The Mother Thing's home was smaller than our state capitol but not much; her family seemed to run to dozens, or hundreds—"family" has a wide meaning under their complex interlinkage. We didn't see any young ones on our floor and I knew that they were being kept away from the "monsters." The adults all greeted me, inquired as to my health, and congratulated me on my recovery; I was kept busy saying "Fine, thank you! Couldn't be better."

They all knew Peewee and she could sing their names.

I thought I recognized one of my therapists, but the Mother Thing, Prof Joe and the boss veterinarian were the only Vegans I

was sure of and we did not meet them.

We hurried on. The Mother Thing's home was typical—many soft round cushions about a foot thick and four in diameter, used as beds or chairs, floors bare, slick and springy, most furniture on the walls where it could be reached by climbing, convenient rods and poles and brackets a person could drape himself on while using the furniture, plants growing unexpectedly here and there as if the jungle were moving in—delightful, and as useful to me as a corset.

Through a series of parabolic arches we reached a balcony. It was not railed and the drop to a terrace was about 75 feet; I stayed back and regretted again that Oscar had no chin window. Peewee went to the edge, put an arm around a slim pillar and leaned out. In the bright outdoor light her "helmet" became an opalescent sphere. "Come see!"

"And break my neck? Maybe you'd like to belay me?"

"Well, for goodness' sakes, take my hand and grab a post."

I let her lead me to a pillar, then looked out.

It was a city in a jungle. Thick dark green so tangled that I could not tell trees from vine and bush spread out all around but was broken repeatedly by buildings as large as and larger than the one we were in. There were

no roads; their roads are underground in cities and sometimes outside the cities. But there was air traffic — individual fliers supported by contrivances even less substantial than our own one-man 'copter harnesses or flying carpets. Like birds they launched themselves from and landed in balconies such as ours.

There were real birds, too, long and slender and brilliantly colored, with two sets of wings in tandem — which looked, aerodynamically unsound but seemed to suit them.

The sky was blue and fair but broken by three towering cumulus anvils, blinding white in the distance.

"Let's go on the roof," said Peewee. "Over here."

It was a scuttle hole reached by staggered slender brackets the Vegans use as stairs. "Isn't there a ramp?"

"Oh, don't be a sissy." Peewee went up like a monkey.

I followed like a tired bear. The brackets were sturdy despite their grace; the hole was a snug fit.

Vega was high in the sky. It appeared to be the angular size of our Sun, which fitted since we were much farther out than Terra is from the Sun, but it was too bright even with full polarization. I looked away and presently eyes and polarizers adjusted until I could see again. Peewee's head was concealed by what appeared

to be a polished chrome basketball. I said, "Hey, are you still there?"

"Sure," she answered. "I can see out all right. It's a grand view. Doesn't it remind you of Paris from the top of the Arc de Triomphe?"

"I don't know, I've never done any traveling."

"Except no boulevards, of course. Somebody is about to land here."

I turned the way she was pointing—she could see in all directions while I was hampered by the built-in tunnel vision of my helmet. By the time I was turned around the Vegan was coming in beside us.

["Hello, children!"]

"Hi, Mother Thing!" Peewee threw her arms around her, picking her up.

["Not so hasty, dear. Let us shed this."] The Mother Thing stepped out of her harness, shook herself in ripples, folded the flying gear like an umbrella and hung it over an arm. ["You're looking fit," Kip."]

"I feel fine, Mother Thing! Gee, it's nice to have you back."

["I wished to be back when you got out of bed. However, your therapists have kept me advised every minute."] She put a little hand against my chest, growing a bit to do so, and placed her eyes almost against my face plate.

["You are well?"]

"I couldn't be better."

"He really is, Mother Thing!"

"Good. You agree that you are well, I sense that you are, Peewee is sure that you are and, most important, your leader therapist assures me that you are. We'll leave at once."]

"What?" I asked. "Where, Mother Thing?"

She turned to Peewee. *["Haven't you told him, dear?"]*

"Gee, Mother Thing, I haven't had a chance."

["Very well."] She turned to me. ["Dear Kip, we must now attend a gathering. Questions will be asked and answered, decisions will be made."] She spoke to us both. ["Are you ready to leave?"]

"Now?" said Peewee. "Why, I guess so—except that I've got to get Madame Pompadour."

["Fetch her, then. And you, Kip?"]

"Uh—" I couldn't remember whether I had put my watch back on after I washed and I couldn't tell because I can't feel it through Oscar's thick hide. I told her so.

["Very well. You children run to your rooms while I have a ship fetched. Meet me here and don't stop to admire flowers."]

We went down by ramp. I said, "Peewee, you've been holding out."

"Kip—please listen! I was told not to tell you while you were ill. The Mother Thing was very firm about it. You were not to be disturbed—that's what she said!—

while you were growing well."

"Why should I feel disturbed? What is all this? What gathering? What questions?"

"Well . . . the gathering is sort of a court. A criminal court, you might say."

"Huh?" I took a quick look at my conscience. But I hadn't had any chance to do anything wrong—I had been helpless as a baby up to two hours ago. That left Peewee. "Runt," I said sternly, "what have you done now?"

"No, Kip. Oh, I'm sorry I didn't tell you at breakfast! But Daddy says never to break any news until after his second cup of coffee and I thought how nice it would be to take a little walk before we had any worries and I was going to tell you—"

"Make it march."

"—as soon as we came down. I haven't done anything. But there's old Wormface."

"What? I thought he was dead."

"Maybe so, maybe not. But, as the Mother Thing says, there are still questions to be asked, decisions to be made. He's up for the limit, is my guess."

I thought about it as we wound our way through strange apartments toward the air lock that led to our Earth-conditioned rooms. High crimes and misdemeanors . . . skulduggery in the spaceways—yes, Wormface was probably in for it. If the Vegans could catch him. "Had caught him" appar-

ently, since they were going to try him. "But where do we come in? As witnesses?"

"I suppose you could call it that."

What happened to Wormface was no skin off my nose—and it would be a chance to find out more about the Vegans. Especially if the court was some distance away, so that we would travel and see the country.

"But that isn't all," Peewee went on worriedly.

"What, else?"

She sighed. "This is why I wanted us to have a nice sight-see first. Uh . . ."

"Don't chew on it. Spit it out."

"Well . . . *we* have to be tried, too."

"What?"

"Maybe 'examined' is the word. I don't know. But I know this: we can't go home until we've been judged."

"But what have we *done*?" I burst out.

"*I don't know!*"

My thoughts were boiling. "Are you sure they'll let us go home then?"

"Mother Thing refuses to talk about it."

I stopped and took her arm. "What it amounts to," I said bitterly, "is that we are under arrest."

"Yes—" She added almost in a sob, "But, Kip, I *told* you she was a cop!"

"Great stuff. We pull her chestnuts out of the fire; and now we're arrested—and going to be tried—and we don't even know why! Nice place, Vega Four. 'The natives are friendly.'" They had nursed me—as we nurse a gangster in order to hang him.

"But, Kip—" Peewee was crying openly now. "I'm *sure* it'll be all right. She may be a cop—but she's still the Mother Thing."

"Is she? I wonder." Peewee's manner contradicted her words. She was not one to worry over nothing. Quite the contrary.

My watch was on the washstand. I ungasketed to put it in an inside pocket. When I came out, Peewee was doing the same with Madame Pompadour. "Here," I said, "I'll take her in with me. I've got more room."

"No thank you," Peewee answered bleakly. "I need her with me. Especially now."

"Uh, Peewee, where is this court? This city? Or another one?"

"Didn't I tell you? No, I guess I didn't. It's not on this planet."

"I thought this was the only inhabited—"

"It's not a planet around Vega. Another star. Not even in the Galaxy."

"Say that again?"

"It's somewhere in the Lesser Magellanic Cloud."

(continued next month)

Dr. William C. Boyd, professor of immunochemistry at Boston University, is a man with a major profession and a couple of major hobbies. One of these is writing science fiction under the name of Boyd Ellanby with his wife, Lyle G. Boyd (whose personally bylined "Verb Sap?" delighted us all in the September, 1956, F&SF. Remember that demoniacally over-literate demon?). Dr. Boyd rides another hobby, relativity, in the following article; and, despite a heavy load of novel ideas, he rides it with high-stepping clarity.

Will Time Wait?

by WILLIAM C. BOYD

YOU KNOW, OF COURSE, THAT IF you were to take off in a space ship and make a round trip into space at a speed close to that of light, when you returned to Earth, you would find yourself noticeably younger than the friends you left behind. At least you ought to know it, for this idea has been used as the basis of one science fiction story after another. On the other hand, despite the authority of science fiction, in purely scientific circles the question is still open to discussion, and there are some theoretical physicists who maintain that this is all bunk and that on the contrary you'd come home not a second younger than your stick-on-the-Earth friends.

The polysyllabic argument concerning this has, for example, for several years enlivened the letter columns of *Nature*, that eminently respectable British journal of general science.

Before I go into the merits of the two sides of the controversy, I should give a little background, for the benefit of those who came in late.

Einstein's theory of relativity grew out of one experimental observation and one assumption. (1) The *observation* was this: You can't by any experiment detect the motion of the earth through space except by reference to some other moving object. There apparently is nothing that

is just standing still. In fact, there is no meaning to the phrase "standing still." There is no absolute standard of rest. There is no hitching post in the universe. This is Einstein's principle of *relativity*. Motion can never be absolute. It can be measured only *relative* to something else. Our personal motions are measured relative to the Earth as though it were standing still; the Earth's motion is measured relative to the Sun; the Sun's motion relative to the center of the Galaxy, and the center of the Galaxy . . . There is no end. (2) The *assumption* was this: The velocity of light in empty space is always the same, utterly independent of the velocity of the source. Light from a moving body travels at the same rate as light from a stationary body. In other words, no matter how fast a star is approaching (or receding), its light takes a fixed time to arrive. Einstein, in his original 1905 paper, showed that the principle of relativity was compatible with the assumption of constant velocity for light in space and that on the basis of the deductions from the two compatible principles many of the then current puzzles of physics disappeared.

In this same first paper on relativity, Einstein drew another conclusion: that if a clock at point A is synchronized with a clock at point B (both being in a system

in which Newton's laws are good as a first approximation), and clock A moves to point B, when it arrives at B it will be found to be slow as compared with the clock at B. (Actually, the problem of "synchronizing" clocks isn't so easy. If one clock is on the Moon and one on Earth, how do you make sure they are marking identical times? Radio signals take time and that must be allowed for. Earth and Moon are moving relative to each other and *that* must be allowed for. So Einstein had to define what he meant by synchronization most carefully.) The amount of lag between the two clocks will depend on the speed at which A travels, and the distance from A to B. This is the famous "clock paradox."

Now a paradox, according to the larger dictionaries, is something which seems contrary to common sense, but is nevertheless true. The fact that the Earth is moving around the Sun, rather than vice versa, is a paradox in this sense. However, "paradox" has come to mean in popular speech something that *seems* true, but isn't, which is just the reverse of the older meaning.

Thus in *The Pirates of Penzance*, the "proof" that Frederic is "really a little boy of five" is called "a most ingenious paradox." Being born on the 29th of February, he had had only five birthdays, so he *seemed* only five since every-

one is as old as the number of birthdays he had. But he *was* twenty-one.

In the case of the clocks, the older meaning applies. It seems contrary to common sense to suppose that clock A would be slow when it got to B, but in the minds of many, including Einstein, it is true. Hence, it is the "clock paradox."

To see how this particular paradox might apply to space travel, consider a modification of an example proposed by Sir Charles Galton Darwin (grandson of the author of *ORIGIN OF SPECIES*), which reduces everything to the simplest terms.

Let us suppose, says Sir Charles, that one twin (Hop) starts off in a space ship which has a velocity $\frac{4}{5}$ that of light, and travels to a star 4 light years away. Once arrived, our traveller reverses his direction and returns at the same velocity. The round trip, a total distance of 8 light years, from the point of view of his brother Sit who stays at home would take $8 \div \frac{4}{5}$ or 10 years. But how about the times recorded by the clocks of the twins when Hop returns? That will tell us if their relative rates of aging are affected.

Darwin reasons as follows: Let each twin have an accurate clock which causes the emission of a flash of light, visible by the other twin, just once an hour. Owing to the fact that the two light-sources

are separating so that each successive flash has a longer distance to travel, each twin will *see* flashes from the other at the rate of only one per 3 hours. Note that both twins think that the other's clock has slowed down. After Hop reverses his flight, and when the twins can see that they are approaching each other, they will then see flashes at the rate of one per $\frac{1}{2}$ hour or 3 per hour. (The intervals between flashes are calculated by formulas based on relativity theory—not particularly difficult, but, on the other hand, not particularly necessary for purposes of this article.)

The key point now arises. There is a difference between the experiences of the two brothers, according to Darwin. The journey to the star is going to take just the same time, according to Hop's clock, as the return, since his speed is the same both ways. So when Hop arrives at the 4 light-year star and reverses direction, the reading of his clock, whatever it is, is just half what it's going to be when he gets back to his stay-at-home brother Sit. Hop will therefore have seen flashes from Sit at the rate of one per 3 hours for half of the time, and at the rate of 3 per hour for the other half of the time. The average is $\frac{1}{2} (3 + \frac{1}{3})$, or $\frac{5}{3}$ per hour. Now, then, Sit sent out, at one-hour intervals, 10 years' worth of flashes, and Hop saw them all. But Hop

received them at the rate of $5/3$ per hour, so that he gathered them all in the space of $10 \div 5/3$, or 6 years. He will naturally suppose this is the time he has been away, especially as this is what his clock will read, as we see in the next paragraph.

Stay-at-home Sit continues to observe slow flashes (one every 3 hours), not only until Hop reverses his course after five years, but for 4 years more, since the star is by definition 4 light years away. So he gets slow flashes for 9 years. He can get fast flashes for only the one remaining year. Thus Sit's total count of Hop's flashes is $(\frac{1}{3} \times 9) + (3 \times 1)$ or 6 years' worth of one-per-hour flashes. Since Hop is now back, and not sending flashes any more, 6 years' worth is all he *did* send, and the reading of his clock must therefore be 6.

The twins agree that although Sit sent out 10 years' worth of flashes, while Hop was away, and therefore lived 10 years, during this same time Hop sent out only 6 years' worth of flashes, and consequently lived only 6 years. So it is no wonder that Sit has more wrinkles than Hop, his hair is grayer, and his reflexes slower.

The Darwin example, however, has not convinced everyone. Herbert Dingle, a British astronomer and physicist (retired), denies most vigorously the existence

of the clock paradox. Professor Dingle says: Look, the principle of relativity states that there is no such thing as absolute motion, only motion of one observer relative to another. There is no fixed frame of reference to refer motion to, so Hop would be just as justified in believing that Sit is going away from him at a velocity of $\frac{1}{2}$ that of light, while Hop remains fixed, as in assuming the opposite. The theory of relativity demands that any effects of such relative motion be completely symmetrical—therefore, there is no more reason to suppose that Sit has aged 6 years and Hop 10 by Darwin's line of reasoning than vice versa. The only way out of the impasse is to decide that the clocks of Sit and Hop must read the same when they are reunited, and that Sit and Hop will be the same age. To maintain anything else is to deny the very basis of relativity, argues Professor Dingle.

Is it possible that the basis of relativity must, after all, be denied? For, as pointed out by Professor W. M. McCrea of Royal Holloway College (the most outspoken of Dingle's many opponents in this controversy), there is a very real *difference* in the careers of Sit and Hop. Hop has a rocket engine and uses it to accelerate to a velocity of $\frac{1}{2}$ the speed of light, whereas Sit does not. If Hop's velocity is suddenly

brought back to zero, it is Hop and not Sit who is killed.

This may be an effective rebuttal of Dingle's view, but if it is true, what becomes of the principle of relativity? Is there after all an absolute standard of rest in the universe? Before we try to answer this, maybe we should consider carefully whether there may not be some other hidden joker. Could it perhaps be the accelerations that make the difference? After all, Hop fires a rocket and accelerates his velocity to $\frac{1}{2}$ the speed of light, and later on has to reverse all this. Maybe this affects the rate of his clock (and his own heart beat, respiration, ect.).

To this, Professor Dingle says, in effect: Why, this is not a valid argument at all. Relativity specifically says you cannot tell which of two observers is in absolute motion. Hop may fire a rocket and feel a tremendous acceleration as a result, but for all we know, or all he knows, he may be decelerating, bringing himself to rest from a uniform state of rapid motion which both he and Sit have been in, quite unknown to them, since they first came into existence. And if Hop can be killed by being brought to sudden rest *relative to Sit*, as Professor McCrea points out, so can Sit be killed if brought to sudden rest *relative to Hop*.

However, the real flaw in Dar-

win's argument, says Professor Dingle, is the assumption that when we are talking about the relative motion of Sit and Hop we can say *anything* about the motion which will specify which one is "really" moving. The process of reversing a going-away motion and starting a coming-together motion cannot be the exclusive property of one of the observers. So, when Darwin assumes that it is Hop who knows just when he reverses his motion, and that the motion is really reversed at the same instant for Sit (granting that Sit doesn't find out about the reversal until 4 years have passed), he is violating the principle of relativity. No, says Professor Dingle, the motion of Sit and Hop is a relative matter, and so is the instant of reversal, which does not belong to either observer uniquely, and cannot be uniquely localized in the time of either.

The apparent confusions and contradictions of such theoretical disputation make it natural to think that the only wholly convincing evidence will come with the achievement of actual space travel—to handsome distances and at respectable velocities. On the other hand, Frank S. Crawford, Jr. suggests that the experiment has already been made, and that the answers are clear. As follows:

The impact of cosmic rays is constantly knocking short-lived

particles called μ -mesons, out of atoms in the upper atmosphere. The half-life of a μ -meson is so short that practically none would survive to reach sea level, in spite of the fact that some μ -mesons travel downward at high velocities, were not their aging retarded by just the effect we have been discussing, the clock paradox. Since in fact, a goodly number do get down to sea level, their rate of "aging" must have been slowed down.

Q. E. D.? Well, not quite, according to Professor Dingle. It is true, he says, that the time required for the mesons to arrive is greater, as measured by us on the ground, than it would be as measured by an observer riding one of the mesons. However, says Dingle, if the meson reversed its direction and returned to the upper atmosphere, the total time recorded by the meson observer would be the same as that recorded by the sea level observer. And still the argument seems unsettled.

It boils down to this: Does relativity indeed state, as Dingle insists, that you can't ever decide which of two observers is moving in relation to the other.

A lot of people think this is what relativity does say, and you could read Einstein's first paper again and again without ever noticing that maybe this is not, after all, a correct interpretation. . . .

There is a principle of physics, stated first by Ernst Mach and known, unsurprisingly, as Mach's principle, which asserts that there is a standard of absolute rest in the universe and that this standard is the mass of the universe as a whole, which, for practical purposes, means the mass of the distant galaxies. If Mach's principle holds, absolute motion *does* have a meaning. It can then be asserted, contrary to what Professor Dingle maintains, that Hop does the *real* moving and Sit is the *real* stay-at-home, for Sit is at rest with respect to the distant galaxies and Hop is in motion. . . . And there is reason to believe that Einstein subscribed to Mach's principle.

But if he did and if Mach's principle is indeed one of the bases of the theory of relativity, why is this matter not better known?

One reason is that in his famous 1905 paper, Einstein does not specifically mention it. Einstein introduced the distant galaxies into his argument in a very indirect fashion. He simply said, "Let us take a system of coordinates in which the equations of Newtonian mechanics hold good," (adding the footnote "i.e. to the first approximation"). The trick is that these equations hold good only in an "inertial frame," and it is only the mass of the universe at large (Mach's principle)

that defines our inertial frame.

And to this, McCrea and those who are on his side, agree: With no inertial frame, it could not be shown that Hop and not Sit had done the travelling. In an empty universe, there would be no clock paradox—when Hop returned, instead of being younger than his brother, as would happen in our full universe, he would be the same age. In fact, it's only in the nearly empty universe that relativity, as popularly misunderstood, would really operate!

Some relativists consider that the theory of general relativity (Einstein's later theory, capable of treating non-uniformly moving systems) deals quite adequately with problems of inertia without making any real use of the "metaphysical" Mach's principle. All except Dingle agree, however, that there would be a real age difference between Sit and Hop.

Well, then, what should we— you and I, that is—believe? Thirty years of scientific research have convinced me that when there is controversy about a point in science, you should form your own opinion, if you understand the subject, and hold to your opinion until somebody convinces you that you are wrong. If you *don't* understand the subject, you have no choice but to rely on the opinions of other people who apparently do, and you are reduced to the simple procedure

of counting prominent noses.

In the present case, this technic yields an overwhelming verdict in favor of the McCrea side of the controversy. All the astronomers and physicists I know are in agreement in believing that the clock paradox would work exactly as Einstein said it would, and that Professor Dingle is wrong in his objection. In fact the issue was for years regarded as closed until Professor Dingle suddenly decided to reopen the question. The only author, so far as I know, who agrees with Dingle as L. Essen, an expert on quartz clocks and principal scientific officer at the National Physics Laboratory in England; and as far as I am aware, he has contributed only one brief note on the subject.

Obviously, agreement among the authorities in a field does not constitute a guarantee that they are right—but experience shows that by and large they are. It has happened, and more than once, that all the authorities were wrong, and a lone-wolf nonconformist was right. More than once—but in no more than about 1 per cent of the cases, or less.

So, I am inclined, on the basis of what the authorities say, to believe that when space travel develops to the point where long voyages at velocities approaching the speed of light become possible, it will be found that returned space travellers have aged

less than their twin brothers who stay at home.

Formulas for calculating the time difference were published by the great pioneer of space travel, Robert Esnault-Pelterie, and more recently by Professor E. M. McMillan. From them it can be calculated that a space traveller who went to the great galaxy in the constellation of Andromeda, at a constant acceleration of 2 g for half the distance, then reversing so as to come to rest as he reached his destination, and repeating the whole process to return to Earth, would spend, according to his clock, about 29 years on the round trip. But he would find that according to Earth's clocks nearly 3,000,000 years had elapsed, and most of his friends and relatives would be very near senility.

However, it will be some time before such results are seen in practice. It is generally agreed that space travel, with the technics available and presently in prospect, will be limited to the solar system until methods far beyond anything we can now imagine are developed. Professor McMillan calculated that a man going to Neptune in a space ship with an acceleration as great as 10g (which might well begin to seem pretty stiff before he arrived), would gain only 1.5 minutes of time in the 5 days required for the one-way trip. He could

gain another 1.5 minutes on the way back. If his object is merely to stay young, this looks like doing it the hard way.

Not only are the technics of space travel to such enormous distances not yet developed, at present we do not even see any possible way of ever developing them. McMillan calculated that his traveller (in a one-ton space ship) merely in going to Neptune would need energy equivalent to more than the amount obtainable from the fission of two tons of uranium. To reach the stars, unless the "space warp" and "hyper-space jump" of science fiction become realities, we can never get enough power unless we can convert matter *completely* into energy ($E=mc^2$ —a transformation which today we haven't the remotest idea how to accomplish. Even if we could do it, the required amounts of this ultimate fuel, matter itself, are disconcertingly large, to say the least.

Part of the trouble, of course, is the same as that we face in our present chemically fueled rockets: you have to take all your fuel with you, including that for the return, for you cannot count on making a landing to refuel, or on finding the right fuel (though in the case of total conversion of matter to energy it *might* not make any difference what form your matter was in).

So your ship has to be loaded,

on take-off, with all the fuel to accelerate you and it during the trip halfway there, plus that required to decelerate you so as to stop at your destination, plus all the fuel required for the return voyage. All this fuel has to be accelerated along with you, though the job gradually gets less as you travel and the fuel is used up. The net result is that if the ratio of fuel to payload required to go halfway is r , the ratio required for the round trip is r^4 , which can be pretty huge.

A man in a one-ton space ship could in 7.2 years (his time) make the round trip to alpha-Centauri, using a constant acceleration of only 1 g, starting with fuel in the form of matter weighing some 1600 tons. Awkward, certainly, but maybe some day not impossible. But your explorer who goes to Andromeda with an acceleration of 2 g, assuming his space ship also to weigh one ton (somewhat smaller than Sputnik III, and probably quite inadequate for such a long trip) would have to start from Earth with 8.39×10^{25} or about 84,000,000,000,000,000,000,000,000, tons of matter-fuel. Since the mass of the Earth is only about 6.60×10^{21} tons, this means our adventurer would have to take off with, and convert com-

pletely to energy which is used with 100 percent efficiency during the round trip, mass equivalent to more than 10,000 Earths. By accelerating to nearly the speed of light, then shutting off the engine and coasting, the voyage could be made with much less fuel, but then the time elapsing on the ship becomes forbiddingly long.

Now it is very dangerous to state that a thing is impossible. Only too often, a few years (or days) after you publish such a statement, some bright lad comes up with a way of doing it that you never thought of. So let us not say it is impossible that man will ever visit the galaxy in Andromeda. But I think we might venture to say that it does not seem likely that we shall get there so long as we are still forced to accelerate space ships on the rocket principle and get our energy from the annihilation of matter—than which we cannot at present even imagine a better, or indeed any alternative, source.

Subject to this qualification then, we are probably justified in concluding tentatively that while it may be entirely all right for writers to use the clock paradox in stories, it will be some time yet before it becomes a significant problem in our daily life.



A few years ago, R. M. McKenna retired from the Navy, enrolled in a university, and, swallowing the anchor altogether, married a (charming) librarian. With one full career behind him, he here launches on another—in a particularly moving fashion....

CASEY AGONISTES

by R. M. McKENNA

YOU CAN'T JUST PLAIN DIE. You got to do it by the book.

That's how come I'm here in this TB ward with nine other recruits. Basic training to die.

You do it by stages. First a big ward, you walk around and go out and they call you mister. Then, if you got what it takes, a promotion to this isolation ward and they call you charles. You can't go nowhere, you meet the masks, and you get the feel of being dead.

Being dead is being weak and walled off. You hear car noises and see little doll-people down on the sidewalks, but when they come to visit you they wear white masks and nightgowns and talk past you in the wrong voices. They're scared you'll rub some off on them. You would, too, if you knew how.

Nobody ever visits me. I had practice being dead before I come here. Maybe that's how I got to be charles so quick.

It's easy, playing dead here. You eat your pills, make out to sleep in the quiet hours and drink your milk like a good little charles. You grin at their phony joshing about how healthy you look and feel. You all know better, but them's the rules.

Sick call is when they really make you know it. It's a parade—the head doctor and nurse, the floor nurse Mary Howard and two internes, all in masks and nightgowns. Mary pushes the wheeled rack with our fever charts on it. The doc is a tall skinhead with wooden eyes and pinchnose glasses. The head nurse is fat, with little pig eyes and a deep voice.

The doc can't see, hear, smell or touch you. He looks at your reflection in the chart and talks about you like you was real, but it's Mary that pulls down the cover and opens your pajama coat, and the internes poke and look and listen and tell the doc

what they see and hear. He asks them questions for you to answer. You tell them how good you feel and they tell him.

He ain't supposed to get contaminated.

Mary's small, dark and sweet and the head nurse gives her a bad time. One interne is small and dark like Mary, with soft black eyes and very gentle. The other one is pink and chubby.

The doc's voice is high and thin, like he ain't all there below decks. The head nurse snaps at Mary, snips at the internes, and puts a kind of dog wiggle in her voice when she talks to the doc.

I'm glad, not to know what's under any of their masks, except maybe Mary's, because I can likely imagine better faces for them than God did.

The head nurse makes rounds, riding the book. When she catches us out of line, like smoking or being up in a quiet hour, she gives Mary hell.

She gives us hell too, like we was babies. She kind of hints that if we ain't respectful to her and obey her rules maybe she won't let us die after all.

Christ, how I hate that hag! I hope I meet her in hell.

That's how it struck me, first day or two in isolation. I'd looked around for old shipmates, like a guy does, but didn't see any. On the third day one recognized me. I thought I knew that gravel

voice, but even after he told me I couldn't hardly believe it was old Slop Chute Hewitt.

He was skin and bones and his blue eyes had a kind of puzzled look like I saw in them once years ago when a big Limey sucker punched him in Nagasaki Joe's. When I remembered that, it made me know, all right.

He said glad to see me there and we both laughed. Some of the others shuffled over in striped bathrobes and all of a sudden I was in like Flynn, knowing Slop Chute. I found out they called the head doc Uncle Death. The fat nurse was Mama Death. The blond interne was Pink Waldo, the dark one Curly Waldo, and Mary was Mary. Knowing things like that is a kind of password.

They said Curly Waldo was sweet on Mary, but he was a poor Italian. Pink Waldo come of good family and was trying to beat him out. They were pulling for Curly Waldo.

When they left, Slop Chute and me talked over old times in China. I kept seeing him like he was on the *John D. Edwards*, sitting with a cup of coffee topside by the after fireroom hatch, while his snipes turned to down below. He wore bleached dungarees and shined shoes and he looked like a lord of the earth. His broad face and big belly. The way he stoked chow into himself in the guinea pullman—that's what give him his

name. The way he took aboard beer and samshu in the Kong-moon Happiness Garden. The way he swung the little ne-sans dancing in the hotels on Skibby Hill. Now . . . Godalmighty! It made me know.

But he still had the big jack lantern grin.

"Remember little Connie that danced at the Palais?" he asked.

I remember her, half Portygee, cute as hell.

"You know, Charley, now I'm headed for scrap, the onliest one damn thing I'm sorry for is I didn't shack with her when I had the chance."

"She was nice," I said.

"She was green fire in the velvet, Charley. I had her a few times when I was on the *Monocacy*. She wanted to shack and I wouldn't never do it. Christ, Christ, I wish I did, now!"

"I ain't sorry for anything, that I can think of."

"You'll come to it, sailor. For every guy there's some one thing. Remember how Connie used to put her finger on her nose like a Jap girl?"

"Now Mr. Noble, you mustn't keep arthur awake in quiet hour. Lie down yourself, please."

It was Mama Death, sneaked up on us.

"Now rest like a good boy, charles, and we'll have you home before you know it," she told me on her way out.

I thought a thought at her.

The ward had green-gray linoleum, high, narrow windows, a spar-color overhead, and five bunks on a side. My bunk was at one end next to the solarium. Slop Chute was across from me in the middle. Six of us was sailors, three soldiers, and there was one marine.

We got mucho sack time, training for the long sleep. The marine bunked next to me and I saw a lot of him.

He was a strange guy. Name of Carnahan, with a pointed nose and a short upper lip and a go-to-hell stare. He most always wore his radio earphones and he was all the time grinning and chuckling like he was in a private world from the rest of us.

It wasn't the program that made him grin, either, like I thought first. He'd do it even if some housewife was yapping about how to didify the dumplings. He carried on worst during sick call. Sometimes Uncle Death looked across almost like he could hear it direct.

I asked him about it and he put me off, but finally he told me. Seems he could hypnotize himself to see a big ape and then make the ape clown around. He told me I might could get to see it too. I wanted to try, so we did.

"He's there," Carnahan would say. "Sag your eyes, look out the

corners. He won't be plain at first."

"Just *expect* him, he'll come. Don't want him to do anything. You just *feel*. He'll do what's natural," he kept telling me.

I got where I could see the ape—Casey, Carnahan called him—in flashes. Then one day Mama Death was chewing out Mary and I saw him plain. He come up behind Mama and—I busted right out laughing.

He looked like a bowlegged man in an ape suit covered with red-brown hair. He grinned and made faces with a mouth full of big yellow teeth, and he was furnished like John Keeno himself. I roared.

"Put on your phones so you'll have an excuse for laughing," Carnahan whispered. "Only you and me can see him, you know."

Fixing to be dead you're ready for God knows what, but Casey was sure something.

"Hell no, he ain't real," Carnahan said. "We ain't so real ourselves any more. That's why we can see him."

Carnahan told me okay to try and let Slop Chute in on it. It ended we cut the whole gang in, going slow so the masks wouldn't get suspicious.

It bothered Casey at first, us all looking at him. It was like we all had a string on him and he didn't know who to mind. He

backed and filled and tacked and yawed all over the ward not able to steer himself. Only when Mama Death was there and Casey went after her, then it was like all the strings pulled the same way.

The more we watched him the plainer and stronger he got till finally he started being his own man. He came and went as he pleased and we never knew what he'd do next except that there'd be a laugh in it. Casey got more and more there for us, but he never made a sound.

He made a big difference. We all wore our earphones and giggled like idiots. Slop Chute wore his big sideways grin more often. Old Webster almost stopped griping.

There was a man filling in for a padre came to visitate us every week. Casey would sit on his knee and wiggle and drool, with one finger between those strong, yellow teeth. The man said the radio was a Godsend to us patient spirits in our hour of trial. He stopped coming.

Casey made a real show out of sick call. He kissed Mama Death smack on her mask, danced with her and bit her on the rump. He rode piggy back on Uncle Death. He even took a hand in Mary's romance.

One Waldo always went in on each side of a-bunk to look, listen and feel for Uncle. Mary could go on either side. We kept count

of whose side she picked and how close she stood to him. That's how we figured Pink Waldo was ahead.

Well, Casey started to shoo her gently in by Curly Waldo and then crowd her closer to him. And, you know, the count began to change in Curly's favor. Casey had something.

If no masks were around to bedevil, Casey would dance and turn handsprings. He made us all feel good.

Uncle Death smelled a rat and had the radio turned off during sick call and quiet hours. But he couldn't cut off Casey.

Something went wrong with Roby, the cheerful black boy next to Slop Chute. The masks were all upset about it and finally Mary come told him on the sly. He wasn't going to make it. They were going to flunk him back to the big ward and maybe back to the world.

Mary's good that way. We never see her face, of course, but I always imagine for her a mouth like Venus has; in that picture you see her standing in the shell.

When Roby had to go, he come around to each bunk and said goodbye. Casey stayed right behind him with his tongue stuck out. Roby kept looking around for Casey, but of course he couldn't see him.

He turned around, just before he left the ward, and all of a

sudden Casey was back in the middle and scowling at him. Roby stood looking at Casey with the saddest face I ever saw him wear. Then Casey grinned and waved a hand. Roby grinned back and tears run down his black face. He waved and shoved off.

Casey took to sleeping in Roby's bunk till another recruit come in.

One day two masked orderlies loaded old Webster the whiner onto a go-to-Jesus cart and wheeled him off to x-ray. They said. But later one came back and wouldn't look at us and pushed Webster's locker out and we knew. The masks had him in a quiet room for the graduation exercises.

They always done that, Slop Chute told me, so's not to hurt the morale of the guys not able to make the grade yet. Trouble was, when a guy went to x-ray on a go-to-Jesus cart he never knew till he got back whether he was going to see the gang again.

Next morning when Uncle Death fell in for sick call Casey come bouncing down the ward and hit him a haymaker plumb on the mask.

I swear the bald-headed bastard staggered. I know his glasses fell off and Pink Waldo caught them. He said something about a moment of vertigo, and made a quick job of sick call. Casey stayed right behind him and kicked his stern post every step he took.

Mary favored Curly Waldo's side that day without any help from Casey.

After that Mama Death really got ugly. She slobbered loving care all over us to keep us knowing what we was there for. We got baths and back rubs we didn't want. Quiet hour had to start on the dot and be really quiet. She was always reading Mary off in whispers, like she knew it bothered us.

Casey followed her around aping her duck waddle and poking her behind now and again. We laughed and she thought it was at her and I guess it was. So she got Uncle Death to order the routine temperatures taken rectally, which she knew we hated. We stopped laughing and she knocked off the rectal temperatures. It was a kind of unspoken agreement. Casey give her a worse time than ever, but we saved our laughing till she was gone.

Poor Slop Chute couldn't do anything about his big, lopsided grin that was louder than a belly laugh. Mama give him a real bad time. She arthured the hell, out of him.

He was coming along first rate, had another hemorrhage, and they started taking him to the clinic on a go-to-Jesus cart instead of in a chair. He was supposed to use ducks and a bedpan instead

of going to the head, but he saved it up and after lights out we used to help him walk to the head. That made his reflection in the chart wrong and got him in deeper with Uncle Death.

I talked to him a lot, mostly about Connie. He said he dreamed about her pretty often now.

"I figure it means I'm near ready for the deep-six, Charley."

"Figure you'll see Connie then?"

"No. Just hope I won't have to go on thinking about her then. I want it to be all night in and no reveille."

"Yeah," I said, "me too. What ever become of Connie?"

"I heard she ate poison right after the Reds took over Shanghai. I wonder if she ever dreamed about me?"

"I bet she did, Slop Chute," I said. "She likely used to wake up screaming and she ate the poison just to get rid of you."

He put on his big grin.

"You regret something too, Charley. You find it yet?"

"Well, maybe," I said. "Once on a stormy night at sea on the *Black Hawk* I had a chance to push King Brody over the side. I'm sorry now I didn't."

"Just come to you?"

"Hell, no, it come to me three days later when he give me a week's restriction in Tsingtao. I been sorry ever since."

"No. It'll smell you out, Charley. You wait."

Casey was shadow boxing down the middle of the ward as I shuffled back to my bunk.

It must've been spring because the days were longer. One night, right after the nurse come through, Casey and Carnahan and me helped Slop Chute walk to the head. While he was there he had another hemorrhage.

Carnahan started for help but Casey got in the way and motioned him back and we knew Slop Chute didn't want it.

We pulled Slop Chute's pajama top off and steadied him. He went on his knees in front of the bowl and the soft, bubbling cough went on for a long time. We kept flushing it. Casey opened the door and went out to keep away the nurse.

Finally it pretty well stopped. Slop Chute was too weak to stand. We cleaned him up and I put my pajama top on him, and we stood him up. If Casey hadn't took half the load, we'd'a never got him back to his bunk.

Godalmighty! I used to carry hundred-kilo sacks of cement like they was nothing.

We went back and cleaned up the head. I washed out the pajama top and draped it on the radiator. I was in a cold sweat and my face burned when I turned in.

Across the ward Casey was sitting like a statue beside Slop Chute's bunk.

Next day was Friday, because Pink Waldo made some crack about fish to Curly Waldo when they formed up for sick call. Mary moved closer to Curly Waldo and gave Pink Waldo a cold look. That was good.

Slop Chute looked waxy, and Uncle Death seemed to see it because a gleam come into his wooden eyes. Both Waldoes listened all over Slop Chute and told Uncle what they heard in their secret language. Uncle nodded, and Casey thumbed his nose at him.

No doubt about it, the ways was greased for Slop Chute. Mama Death come back soon as she could and began to loosen the chocks. She slobbered arthurs all over Slop Chute and flittered around like women do when they smell a wedding. Casey give her extra special hell, and we all laughed right out and she hardly noticed.

That afternoon two orderly-masks come with a go-to-Jesus cart and wanted to take Slop Chute to x-ray. Casey climbed on the cart and scowled at them.

Slop Chute told 'em shove off, he wasn't going.

They got Mary and she told Slop Chute please go, it was doctor's orders.

Sorry, no, he said.

"Please, for me, Slop Chute," she begged.

She knows our right names —

that's one reason we love her. But Slop Chute shook his head, and his big jaw bone stuck out.

Mary — she had to then — called Mama Death. Mama waddled in, and Casey spit in her mask.

"Now arthur, what is this, arthur, you know we want to help you get well and go home, arthur," she arthured at Slop Chute. "Be a good boy now, arthur, and go along to the clinic."

She motioned the orderlies to pick him up anyway. Casey hit one in the mask and Slop Chute growled, "Sheer off, you bastards!"

The orderlies hesitated.

Mama's little eyes squinted and she wiggled her hands at them. "Let's not be naughty, arthur. Doctor knows best, arthur."

The orderlies looked at Slop Chute and at each other. Casey wrapped his arms and legs around Mama Death and began chewing on her neck. He seemed to mix right into her, someway, and she broke and run out of the ward.

She come right back, though, trailing Uncle Death. Casey met him at the door and beat hell out of him all the way to Slop Chute's bunk. Mama sent Mary for the chart, and Uncle Death studied Slop Chute's reflection for a minute. He looked pale and swayed a little from Casey's beating.

He turned toward Slop Chute and breathed in deep and Casey was on him again. Casey wrapped his arms and legs around him and

chewed at his mask with those big yellow teeth. Casey's hair bristled and his eyes were red as the flames of hell.

Uncle Death staggered back across the ward and fetched up against Carnahan's bunk. The other masks were scared spitless, looking all around, kind of knowing.

Casey pulled away, and Uncle Death said maybe he was wrong, schedule it for tomorrow. All the masks left in a hurry except Mary. She went back to Slop Chute and took his hand.

"I'm sorry, Slop Chute," she whispered.

"Bless you, Connie," he said, and grinned. It was the last thing I ever heard him say.

Slop Chute went to sleep, and Casey sat beside his bunk. He motioned me off when I wanted to help Slop Chute to the head after lights out. I turned in and went to sleep.

I don't know what woke me. Casey was moving around fidgety-like, but of course not making a sound. I could hear the others stirring and whispering in the dark too.

Then I heard a muffled noise—the bubbling cough again, and spitting. Slop Chute was having another hemorrhage and he had his head under the blankets to hide the sound. Carnahan started to get up. Casey waved him down.

I saw a deeper shadow high in the dark over Slop Chute's bunk. It came down ever so gently and Casey would push it back up again. The muffled coughing went on.

Casey had a harder time pushing back the shadow. Finally he climbed on the bunk straddle of Slop Chute and kept a steady push against it.

The blackness came down anyway, little by little. Casey strained and shifted his footing. I could hear him grunt and hear his joints crack.

I was breathing forced draft with my heart like to pull off its bed bolts. I heard other bed-springs creaking. Somebody across from me whimpered low, but it was sure never Slop Chute that done it.

Casey went to his knees, his hands forced almost level with his head. He swung his head back and forth and I saw his lips curled back from the big teeth clenched tight together. . . . Then he had the blackness on his shoulders like the weight of the whole world.

Casey went down on hands and knees with his back arched like a bridge. Almost I thought I heard him grunt . . . and he gained a little.

Then the blackness settled heavier, and I heard Casey's tendons pull out and his bones snap. Casey and Slop Chute disappeared under the blackness, and it over-

flowed from there over the whole bed . . . and more . . . and it seemed to fill the whole ward.

It wasn't like going to sleep, but I don't know anything it was like.

The masks must've towed off Slop Chute's hulk in the night, because it was gone when I woke up.

So was Casey.

Casey didn't show up for sick call and I knew then how much he meant to me. With him around to fight back I didn't feel as dead as they wanted me to. Without him I felt deader than ever. I even almost liked Mama Death when she charlsed me.

Mary came on duty that morning with a diamond on her third finger and a brighter sparkle in her eye. It was a little diamond, but it was Curly Waldo's and it kind of made up for Slop Chute.

I wished Casey was there to see it. He would've danced all around her and kissed her nice, the way he often did. Casey loved Mary.

It was Saturday, I know, because Mama Death come in and told some of us we could be wheeled to a special church hooraw before breakfast next morning if we wanted. We said no thanks. But it was a hell of a Saturday without Casey. Sharkey Brown said it for all of us—"With Casey gone, this place is like a morgue again."

Not even Carnahan could call him up.

"Sometimes I think I feel him stir, and then again I ain't sure," he said. "It beats hell where he's went to."

Going to sleep that night was as much like dying as it could be for men already dead.

Music from far off woke me up when it was just getting light. I was going to try to cork off again, when I saw Carnahan was awake.

"Casey's around somewhere," he whispered.

"Where?" I asked, looking around. "I don't see him."

"I feel him," Carnahan said. "He's around."

The others began to wake up and look around. It was like the

night Casey and Slop Chute went under. Then something moved in the solarium. . . .

It was Casey.

He come in the ward slow and bashful-like, jerking his head all around, with his eyes open wide, and looking scared we was going to throw something at him. He stopped in the middle of the ward.

"Yea, Casey!" Carnahan said in a low, clear voice.

Casey looked at him sharp.

"Yea, Casey!" we all said. "Come aboard, you hairy old bastard!"

Casey shook hands with himself over his head and went into his dance. He grinned . . . and I swear to God it was Slop Chute's big, lopsided grin he had on.

For the first time in my whole damn life I wanted to cry.



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Tired, run-down, miserable, unhappy? Do you suffer from a general and persistent feeling of inadequacy? Well, then, obviously you need a talking cat. Obviously...

A Word to the Wise

by JOHN COLLIER

RICHARD WHITIKER DRANK HIS MILK and carried his serviceable umbrella. When he looked in the glass he saw a face too simple ever to look old, and too worn ever to look young. Clowns have faces of this sort. His hair, well-streaked with grey, looked as if it were a wig, or as if it had been cut at home.

"That," said he, "is the face of someone who has not got very far in life. Damn it, I have hit the nail on the head! I am absolutely right, for nor have I. I have good judgment, you see, yet I have missed the bus on various important occasions."

This bothered him. He consulted the success books, which told him to analyze his past failures, and find out the true reason for them, in order to do better in the future.

This was a tremendous task. He paced up and down the room, he scratched his head; he took his ears in his hands and sat down

on the bed to concentrate. At last, as if by a flash of lightning, he saw the very heart of the matter. He sprang up: "There is no doubt about it," he cried, "I should have made none of these silly mistakes. I should have done a thousand times better, I should have been one of the greatest successes ever known, had I only had a cat that could talk.

"Such an animal would have advised me against that wretched gold mine.

"It would have told me frankly I could never do well with a hotel.

"It would have cried 'Look out!' or 'Beware!' or something, when I brought that Colonel Rankin home and introduced him to my wife."

He found it a galling thought, to have missed fame and fortune for lack of a cat and a few words, in a world so abounding with both. But with the humble persistence of all wooden-faced men, he resolved to repair the defi-

ciency, and to make the most of the years that remained to him.

He was not long in supplying himself with a cat, and was careful to choose one that pursed its lips shrewdly and regarded the world through a round and owlish eye. "This," said he, "is the first step, and that is the one that counts. I look forward to the day when this promising cat shall utter the name of a race horse or a splendid investment, or tell me how to discover a delightful young creature who will love a plain middle-aged fellow like me."

At this thought our friend could hardly contain himself for joy, which was well salted with impatience. He gave his cat the best of everything, and talked to it at all hours, taking care to pronounce his words clearly. He bought a radio for its special benefit, and turned it on at the time of the stock market reports. The only trouble was, the cat remained obstinately mute, which was a source of much mortification to our hero, and of infinite amusement to his friends.

"I have solved the major problem," he said. "I shall not allow myself to be defeated by a minor one. Let me see now: drink makes a man drunk, beef makes a man beefy, milk makes a man mild. I drink it, and I am mild: I am talking from experience. Clearly I must feed this cat parrots, and that will make him talk like an

oracle. Besides, the toughness of these antique birds will strengthen his jaws, and give him more command of all the muscles of his throat and mouth. One thing fits in with another: I'll be off to the bird market in the morning."

Next morning he was early at the bird market, and came home with a fine Mexican Yellow-head, whose neck he wrung, and plucked it, and made it into a tasty fricassee which his cat licked up with relish.

Next day he obliged the animal with a well-spoken Amazon Parrot, then with a fluent Panama, then a garrulous Lemon-crested Cockatoo, and on his birthday a magnificent Macaw, and so forth, all talented birds, capable of stopping a horse and van in full career, scaring burglars or embarrassing young men who called with bouquets. But they were done with all that when they fell into the hands of Mr. Whitiker.

The cat opened his mouth fast enough when the birds were set before him, but still kept shut at other times except for an occasional yawn. Meanwhile the cost of this diet was prodigious. Our friend soon felt the strain.

He denied himself everything, he grew very emaciated, his coat wore out at the elbows, his shoes let water at every step, his roof leaked in a dozen places, and everything fell into decay. The

little children cried after him in the street as he hurried home from the bird market, fearful lest his cat should be uttering a few crisp words at the moment, and he be missing them.

At last there came a day when he was at the end of all his resources, and could regale the creature with nothing better than a love bird, while he himself dined on despair. On that very day, whether it was astonishment at the scanty portion, or whether his ears deceived him, he could have sworn his cat emitted a low and rather tuneless whistle.

At once his hopes revived, and he saw years of happiness spread shining out before him. "Hurrah!" he cried. "It is beginning to take effect. I shall be rich! I shall be famous! I shall enjoy the embraces of that delicious creature, aged twenty-two or twenty-three, and with a thirty-five inch bust! I wonder if he will give me a tip or two about diet. After all, I have done a lot for him that way."

Nothing like striking while the iron is hot. Next morning our hero went out pawning and borrowing, and scraped together the price of a superb African Grey, the pride of the whole bird market, and, rushing home, he gave it to his cat raw, with the warmth of life still in it. He hoped by this means to insure that none

of its virtue should be lost.

The cat swallowed it with avidity, blinked a little, wiped its chops with its paw, and raised its eyes to Heaven, as if in astonishment and gratitude. Then turning them full on Richard Whitaker, it said in a clear and vigorous tone, "Look out!"

The good man clasped his hands in an ecstasy. "He can speak!" he cried. "He can speak! And in what a delightful accent! Soon he will utter the name of a winning horse, or of some stock destined to rise like a rocket. He will tell me to go to such and such a town, to such an hotel, and there I shall meet that ravishing creature, twenty-two years of age, and with a bust measurement of thirty-five. What a moment that will be, when I first . . ."

At this point, however, his neglected ceiling fell with a crash, and our poor friend was stretched lifeless among the debris.

"Now what the hell," said the cat, stepping daintily over his prostrate form. "What the hell is the good of feeding a cat parrots, at such ruinous expense, in order to make it talk, if you take no notice of what it says to you?"

This cat subsequently took up its abode in the home of a Mrs. Straker, where it observed a good deal but thought the less said, the better for all concerned.



A no-quarter interstellar war, this, fought out in a quiet chapel, with Earth's champions a tired, middle-aged nun and a long-dead philosopher.

A Demon at Devotions

by JANE ROBERTS

MOTHER SUPERIOR DREW OUT HER rosary from the folds of her heavy habit. The touch of the small black beads was comforting, even if she was not thinking much about the words. It wasn't really right to pray with only half a mind, but God helps those who help themselves and maybe if she thought about things for awhile here in the peaceful chapel, she'd straighten herself out.

Something certainly had set her nerves on edge all week. Of course, the Bishop *was* arriving for the procession on Sunday. But that could hardly be the reason—having already been honored with the good Bishop's presence at Confirmation time for the past five years, she wasn't apt to let his arrival at a plain procession bother her.

Nonetheless, she had been out of sorts . . . she couldn't remember ever being so nervous and jumpy before. She wasn't even saying the rosary properly. Either

her mind went too far ahead of her lips, or lagged behind, so that while her lips were still muttering the Glory Be, her mind was still on the last Hail Mary.

Maybe she'd feel better if she just sat back and relaxed for a moment. Her knees were tired and the vigil lights made her dizzy. Light then dark. Light then dark.

What was that? Had she heard something? What a curious feeling—like the time she'd passed out after a penicillin shot. Like bees in your head. Perhaps she was really sick. But the buzzing in her head was forming words. Or was it? What was that? I am Alzhia . . . Arzia? Was it Latin, Greek? There, she had heard it. I am Lord of something or other. It sounded like Alphiz.

Good heavens. Wasn't there a demon by that name? Horrified, her eyes flew open. *Paradise Lost*. They were all listed there. Ashtaroth, Astarte, Orsiris . . . no, she was sure it began with an A.

What on earth would she say if it was a demon? "Get thee behind me Satan," sounded terribly dramatic—but then, people aren't plagued by demons every day, either.

Of course, it might very well be a vision. How could you really tell the difference? It was outrageous, really, the similarity between the names of angels and demons. Still, she'd better kneel down and fold her hands just in case.

"Do you hear me? Can you understand?"

Well, that was plain enough. "Yes," she murmured weakly. Maybe she was a schizophrenic.

"I am Lord of Alpha Seven."

"You are who?" She had to whisper. The nuns would be shocked if they heard voices speaking out loud in the chapel.

"I am the lord of Alpha Seven. We have observed your planet and are coming to your assistance."

Well this was a fine kettle of fish. Was he an angel or a devil?

"I repeat. I am Lord of Alpha Seven. We are coming to your assistance. We have carefully screened all the minority groups on your planet, and have finally chosen the nuns, since they are the most enslaved, and no other defender has arisen to agitate for their freedom."

The world was surely coming to an end for her. "Hail Mary full of grace, the Lord is with thee . . ."

"Did you hear me?"

Did she hear him? How could she help it? The voice sounded as if it were coming from her own brain.

"Yes, I hear you."

"The isolation of your existence, the dark edifices in which you are imprisoned, the black clothing which your kind is forced to wear as a symbol of your status—all these things are known to us. We have decided to take up your cause as if it were our own."

Was the chapel growing darker or was it her imagination? Surely it was. She was being besieged by demons for her pride and sinfulness. Hadn't her confessor warned her against the sin of pride? And she had dared to think of visions!

"Oh dear Lord—"

"There is nothing to fear. Only listen and follow my directions."

See that? How it had twisted her words.

"Not you. I'm not praying to you." She had to get herself under control. Obviously the voice was her pagan id. The only thing to do was listen and pray for guidance. Perhaps God would show her the way. But how on earth did you convince your own subconscious of its error?

The voice was impatient now. "Do you understand? This is a momentous occasion. I am the Lord . . ."

The lord! Did he think . . . did it think it was . . . "Do you mean

to say you're trying to tell me you're God?" She might as well know the worst right away.

"To all intents and purposes, yes, I am."

"You're convinced?" This was ridiculous—her id must have a god complex.

"The time I have allotted for this interview does not include this idiotic questioning. If there is any interrogation I will initiate it. You seem unaware that it is within my power to annihilate your whole planet. I can easily control it without the assistance of you and your kind. My people are logical, and it is logical that we invade your planet since you are defenseless and weaker than ourselves. Abused minority groups are always good weapons—but not indispensable, and your impertinent attitude is not to your advantage."

"But I need time..." It was foolish not to denounce the voice immediately, but...

"My psychological experts inform me that hesitancy on your part is natural in view of the fact that this is your planet's first experience in inter-stellar communication. But I cannot wait forever for your answer: Even now my forces are preparing for the invasion, and outside my dome, the commanders are assembling. . . . Now then, if you and the other nuns carry out my orders, I will install you as proxy rulers of your

planet—if not you will be treated as any subjugated people. What is your decision?"

If only she weren't so confused. "There are some things I don't understand. Will you answer me if I ask some questions?"

"I approve your discretion. It is always safer to have a full picture. But speak quickly."

"Are you infinite? Do you have a beginning in time?"

"Of course I have a beginning. My life span is immeasurably longer than your own, but in many respects our species are much alike. There is no reason to fear our alienness."

"But you aren't infinite?"

"No, I am not."

Oh God bless St. Aquinas. "Then you are not God."

"You are in no position to doubt my authority."

"Well you don't have to snap at me. For that matter, I don't like your tone either. And furthermore, we nothings, as you call us, are 'imprisoned' in our convents by our own will, and our habits distinguish us from all others as being the handmaidens of the true God." There had to be an end to this sometime. And there wasn't any use in taking impertinence from her own unconscious.

"Your diplomacy is most clever. I congratulate you. The data I received on your group was incorrect, I gather. It is not often I am caught unaware. . . . But how do

I know what you say is true, and not, forgive me, the fabrications of a crafty mind to avoid destruction? You say you are the emissary of another planetary lord, and not merely the leader of a subjugated minority?"

Well it was true wasn't it? "Yes."

"Can you prove it?"

"Yes. First of all, the God I follow is the only God, and His existence is self-evident—"

"Self-evident? I rather enjoy this match of wits. Power brings its loneliness and no one dares converse with me on these terms on my own planet. Nevertheless your logic is ridiculously childish, as I should have expected. It is true that *my* existence is self-evident, since I am speaking to you, but surely the thundering voice of your own god is suspiciously silent? I say that there is no such god, so his existence is *not* self-evident."

"If you're not worried about it, then why are you wasting your time talking, while your forces are are supposedly only waiting your word to destroy me?" There. That retort should quiet him some. But of course if it was her id, it would know Aquinas too.

"It amuses me. And I wonder why you are so unconcerned about the fate of your planet; you seem oddly unafraid of arousing my displeasure, though the future of your race is utterly dependent

upon my wish. Were I not suspicious of your motives, the invasion would already be under way."

"My God will defend me."

"Your god! Creature! Where is he? You say he is self-evident—certainly not to me. But if so, his existence can be demonstrated through his effects, but effects are finite and cannot be attributed to an infinite being. Yet you say he is infinite. So he cannot be demonstrated at all."

After all, this was too much. "Very well, then, begin your invasion. But let me tell you that God stands guard over our minds and spirits and will not permit harm to come to us."

"He will not? Then refute my argument."

"Did you think I couldn't? First of all, when an effect is better known than its cause, we proceed from an effect to the cause itself; and since every effect depends upon its cause, if the effect exists, the cause exists . . . Therefore the existence of God is proven through those effects with which we are familiar." God help her. It was Aquinas almost word for word.

"Effects? I don't admit of any. If your God's effects are so far reaching, surely he is here on Alpha Seven? Well I assure you he is not. Pretenders are not dealt with kindly here."

"He certainly is on Alpha, or

wherever it is you are. But your eyes are clouded by ignorance so that you are not aware of His presence. Haven't you any religion at all? Haven't you any idea how you came into being in the first place?"

"Of course not. The wise are concerned only with things that are. To confuse the brain with how the process began is only nonsense."

"Listen, do we agree that motion is the reduction of something from potentiality to actuality?"

"Creature, your persistence tires me. However — yes. So far I agree."

"Splendid. Now you must admit that nothing can be reduced from potentiality to actuality except by something already in a state of being. Whatever is moved must be moved by another. This is the prime mover, or God."

"I see. . . . Do you know, if your story were more believable, I would never believe it. I tend to feel, though, that it is too unbelievable to be fabricated — particularly by one of your species. Its real beauty lies in its very lack

of proof—the only way to test its validity is to begin the invasion, which, if you are correct, would be to invite disaster. Where can I contact this god?"

"There isn't any need to. He hears everything we say."

"He does? My advisers gave me no reason to suspect telepathy. Nevertheless, tell him that I salute him, and compliment him on the shrewdness of his followers. . . . I am calling off the invasion—the wise do not take chances unless they know clearly what is involved. Assure your god of a welcome when he makes himself known on my planet. I suggest a meeting. . . . Perhaps, even, for diversion, I may contact *you* again."

"Oh, no!" Mother Superior shook her head vigorously. But the voice was silent.

Some time when she was less tired, she must attempt to decipher that invasion symbolism. Now, grateful for quiet and the end of her, she must believe, deserved ordeal, she dipped her finger daintily in the holy water font, and genuflected with strengthened humility.



Recommended Reading

by ANTHONY BOUCHER

YOU'D EXPECT, I SHOULD THINK, TO find more unflawed gems in an anthology, theoretically containing the best work of a number of writers, than in a collection by a single author; but so far this year the single-author collections seem to have it over the anthologies (with both groups markedly surpassing the average of book-length novels).

After excellent volumes in past months by Bester, Clarke and del Rey, we now come happily to William Tenn's *TIME IN ADVANCE* (Bantam, 35¢). Here are two long novellas—*Firewater* (*Astounding*, 1952) and *Winthrop Was Stubborn* (*Galaxy*, 1957)—which may serve as models absolute of extrapolative wit and insight, plus two shorter novelets of almost comparable quality. It's the most characteristic and consistent of Tenn's 3 collections to date . . . and when is the man going to brighten our days with the full-scale novel he's so obviously capable of writing?

Charles Beaumont's *YONDER* (Bantam, 35¢) may seem (to me and probably to you) better than last year's *THE HUNGER* because it's all-fantasy (including what one

calls s.f.) rather than an unpatterned mixture of types. It's also a more even volume, with fewer lapses in taste or judgment. There are 16 stories here (4 from these pages), variously grotesque, sensitive, funny, horrible—in short, Beaumontesque, and strongly recommended. (And a special award to Bantam for the most tastefully infectious jacket copy of the season.)

Gerald Kersh's *ON AN ODD NOTE* (Ballantine, 35¢) is indeed an odd one. Subtitled "science fiction stories," it contains, out of 13 stories, just 3 that might fit the most liberal definition of s.f.; two of those are fairly bad, and the third (*The Brighton Monster*) is an all but faultless classic. The other 10 items include a fine detective story (*The Crewel Needle*), fantasies of variable quality, "straight" fiction . . . And yet for all of this seeming chaos, the book is unified by the ever-captivating Kersh personality. Mr. Kersh can (and often does) write a trite or inept story; but he is incapable of writing a dull sentence.

Anthologies include 2 interesting surveys of magazines by their

editors: **THE THIRD GALAXY READER**, edited by H. L. Gold (Double-day, \$3.95), and **THE SECOND WORLD OF IF**, edited by James L. Quinn and Eve Wulff (Quinn, Kingston, N. Y. 50¢).

The first **GALAXY READER** covered 1 year of the magazine, the second 2 years, and this third 4. Mathematically-minded readers may leap to the dire conclusion that the next volume will not appear for another 8 years (or possibly only 7); but I believe that the *Galaxy* anthologies are now to appear on an annual basis, like those from *If* and *F&SF*. Which is as it should be—even though I'm not sure that Mr. Gold the anthologist does full justice to Mr. Gold the magazine editor. I'm baffled as to why he restricts himself here to short stories, without a sample of a fully developed novelet; or why he omits some of *Galaxy's* best and most frequent contributors, such as Sturgeon and Tenn; or why (with the contents of 48 issues to choose from) 4 of the 15 stories should be already available in book form. But at least he has, with a change in publishers, been freed of the compulsion to get as many words as possible into a Gargantuan bargain-book; now he presents a tasteful selection of readable size, highlighted by such authors as Isaac Asimov, Wyman Guin, Damon Knight, Fritz Leiber, William Morrison and Evelyn E. Smith.

The *If* anthology is, if anything, even more enjoyable — especially since it comes from a magazine which has not been extensively anthologized, nor labeled an "aristocrat of s.f." The anthologists, who have overlooked all 9 of these longish stories, have been missing some good bets: a plausible and biting Philip K. Dick satire, for instance, or a fantastically elaborate time-cum-sex-paradox by Charles L. Fontenay. Gordon Dickson and Robert F. Young do nicely too; and the whole collection is gratifyingly free of that needless verbosity which marks (and mars) most magazines that pay by the word. (It's interesting to note that a Beaumont story appears here at 7300 words . . . and at 9700 in the Beaumont collection above!)

Anthologies, after dwindling close to the vanishing point in 1957, seem to be coming back in fashion; and the most welcome aspect of this mode is the return of veteran anthologist Groff Conklin, with **THE GRAVEYARD READER** (Ballantine, 35¢). This is not s.f., nor even entirely fantasy, but rather an exhibition of macabre and ghoulish delights. Here you'll find (if your mind is resolute and your stomach strong) such pleasures as a brand-new, never-before-published dazzler by Theodore Sturgeon and a strange "lost" Fitz-James O'Brien story (rediscovered by Sam Moskowitz), unreprinted

since its first appearance in 1861—along with comparable items by Bradbury, Kuttner (his first published story), Lovecraft, Dahl, Bierce and others, most of them sure to be new to you.

One of the year's most entertaining collections is not of short fiction but of factual articles: Isaac Asimov's *ONLY A TRILLION* (Abelard-Schumann, \$3.50). If you recall *I Feel It In My Bones* (F&SF, December, 1957) or his regular column in *Venture*, you know the all but unique clarity and cogency with which Asimov can explain scientific problems. In these 13 pieces (almost all from *Astounding*, 1948-57), he ranges from the nature of large numbers to the molecular structure of hemoglobin to the atmosphere of other planets to the impossibility of keeping up with "the literature" of any science to the endochronic properties of resublimated thiotimoline (a discovery in itself sufficient to render immortal the name of Asimov—and you'll keep finding that "hard" subjects have a way of becoming pellucidly easy when expounded by so skilled a writer.

Willy Ley has gathered together 46 of his short newspaper pieces as *SATELLITES, ROCKETS AND OUTER SPACE* (Signet Key, 35¢)—an excellent book for the wholly uninformed layman, but a little rudimentary for most regular readers of s.f. More to your taste will be

the reissue of *THE CONQUEST OF SPACE*, text by Ley, paintings by Chesley Bonestell (Viking, \$4.95)—a 1949 book which is still, in writing, painting and most especially bookmaking, unmatched among the non-fiction of our field. The text has been somewhat updated in this 9th printing, and (surprisingly) some of the colors have been changed; if you own the original edition, you can spend happy hours trying to decide which coloration you like better.

Ley is also on the stands with an admirable introduction, at once scholarly and highly readable, to Jules Verne's 1865-70 two-part novel, *FROM THE EARTH TO THE MOON—AND A TRIP AROUND IT* (Crest, 35¢). The same text, which survives triumphantly as fiction despite its flaws in facts, is also available (without Ley) in hard covers (Lippincott, \$1.95).

The most startling statement in recent non-fiction occurs on p. 45 of A. Sternfeld's *INTERPLANETARY TRAVEL*, translated by Y. Triumfov (Imported Publications, 4 W. 16th St., N. Y. 11, 50¢): "One year after the take-off [on the first orbital flight to Mars] the space-ship will reach the farthest point of its trajectory, at a distance of 2,175 light-years from the Earth."

Otherwise the book contains no sensational revelations of Russian power. It's a primer for the comrade in the ulitsa, reasonably clear and accurate but already outdated.

These are the days in which science fiction stories come true before you can print them; and I have a suspicion that this narrative may be a case in point. Certainly something strange is happening to the chervil market. It's been months since I could find any in any store; and how is a man even to attempt a perfect sauce béarnaise without the modest chervil to subdue yet strengthen the more assertive tarragon? Observing from Mexico the American scene, Mr. Marsh hints at the darker reason behind this lamentable shortage.

Poet in Residence

by WILLARD MARSH

AT THE AGE OF EIGHTY-NINE, LIONEL Smythe had the world in his palsied palm. As chairman of the board of Smythe Enterprises, a gigantic, barely legal network of holding corporations, he was possibly the planet's foremost tycoon. From the young man cornering options on lunar real estate up to his present pinnacle of success, he'd driven himself ruthlessly, seven days a week, begrudging rest and spurning recreation. All the living that he'd never found the time for—the trips abroad, the champagne suppers with exotic actresses, the dynasty he'd hoped to found—all had passed him by. It was ridiculous. Here he was, with the fruits of victory to be had for the whistling, and he was simply too damn old to pucker.

"Intolerable!" Lionel slammed his fist on his tray, upsetting it. Milk and crackers made a soggy mixture on the bedclothes. "Cavendish!" he shouted.

The butler instantly appeared. "You called, sir?"

"Clean up this mess," Lionel snapped, "and shut off that silly record player."

"But you *always* enjoy Tallulah with your dinner, sir."

"I'm through with substitutes. Hand me the phone."

Lionel's chief of research was at his North Dallas estate. It wasn't merely in North Dallas, it *was* North Dallas. That was an example of the salary he was getting, and Lionel decided to see if he was worth it.

"Wasserman? Smythe speaking.

What are you working on these days?"

"Why, that ersatz sawdust project, Skipper. You know, for our chain of pseudo-Colonial taverns," Wasserman said foggily.

Enviously, Lionel heard the babble of a party in the background.

"Whatever it is, I want it dropped," he said. "I have a new project. A crash program, requiring full-scale facilities and personnel. I want a new body."

"Yes, sir. That shouldn't be too dif—a new *what*?"

"You heard me. Body. B-O-D-Y. I can't use the one I've got," Lionel said irritably, "so get me a new one. I don't care where or how."

"B-but we can't just *build* one—"

"Then get me someone else's. You'll be able to work out the technicalities, Dr. Wasserman," Lionel said silkily. "Or else."

He hung up impatiently. The lack of imagination in the scientific mind was appalling.

The butler coughed discreetly. "Shall I have your milk warmed, sir?"

"No, curse you! Bring me a sizzling filet mignon!"

"But sir—in your condition? What would you do with it?"

Lionel glared at him. "I can *watch* it, can't I?"

Less than a month later, the harassed Wasserman could report that a breakthrough had been achieved. The successful exchange of psychic

components on a sub-human level was now possible. Bundled in his wheel chair and personally escorted by his chief of research, Lionel rolled through the vast expanse of the experimental plant. New annexes were being erected daily to house the auxiliary laboratories that kept arriving on his private railway spur. There were batteries of floodlights to permit work on a round-the-clock basis, and standby crews were ready to take over during lavatory breaks. Lionel smiled in grim satisfaction, noting that the precious dwindling time remaining to him wasn't being squandered.

They came now into a large amphitheater bustling with white-smocked scientists and lab technicians (all lured from venerable institutions, both here and abroad, by fabulous bonuses). A table was set up in the center, and in the foreground of a litter of equipment were three cages.

"*Rattus norvegicus*," Wasserman said fondly. "White rats, Skipper. The one in the middle's a female. One to the left there is a male, a healthy adolescent her own age. Randy little bugger, isn't he?" he chuckled. "The poor old devil on the right is a complete senile wreck. Just about as far along in his dotage as"—he glanced at Lionel sidewise—"as a rat can get."

All this was abundantly evident to the eye. In a tireless rage of frustration the younger male was clawing at the wire that separated him

from the female, while his pathetic senior huddled there with filmed, exhausted eyes. Gradually a tense hush filled the arena as the preparations were complete. Gloved technicians reached into the end cages to put both male rats to sleep with syringes. Others quickly took over, fitting delicate platinum skull caps onto the drugged rodents. These were connected by wires to some bulky mechanism that was partially screened from sight. Then a biochemist whom Lionel remembered as last year's Nobel Prize winner came forward. He carefully checked the connections, paused dramatically and threw the master switch.

There was a crackle of hidden energy. Both rats stiffened, their limbs moving oddly in unison. White-coated figures blurred the scene as they moved efficiently to disconnect the fittings. When the view was clear again, both rats were conscious.

The decrepit-looking specimen on the right stared around him, obviously disoriented. Then catching sight of the female he started toward her eagerly. But the worn-out body refused to obey his youthful ardor. Its brittle movements carried him only partway across the cage where he halted, betrayed by the useless body he'd been so monstrously imprisoned in. He began shivering. Then his eyes grew bright with terror as he quietly went mad.

Meanwhile the younger-looking male's astonishment, though less disastrous, was equally intense. In disbelieving gratitude he nuzzled his sleek pelt, flexed his miraculously new legs, drew a deep breath of the winy air of restoration and began circling the cage as if he too had lost his mind. Soon he was leaping at the female with redoubled frenzy, an old rat's memories of sex given sudden ability to recreate them....

There'd been follow-up tests, of course, to make sure the exchange of rodent personalities had been complete. By the time the experiments had proceeded to the higher vertebrates it was much easier to determine. The hoary maxim that you can't teach an old dog new tricks was thoroughly refuted when Wasserman's lab crew simply inserted an old dog in a young dog's body. And when the oldest gorilla in captivity (obtained when Lionel foreclosed the Lincoln Park Zoo) awoke to find himself inhabiting the framework of his grandson, Project Bodysnatch was pronounced to be completely feasible.

Instantly, Lionel's publicity organization swung into action. The remaining slum areas of the country were covered with mysteriously provocative handbills; waterfront dives were discreetly sifted by agents of Smythe Enterprises, in hopes of discovering a healthy young pauper who would be will-

ing to exchange his body for the zombie-like existence of a multi-millionaire who, if not quite at death's door, was certainly in knocking distance of it. Because of the delicate nature of the proposition, Lionel reserved the final screening of the down-and-outers for himself. But somehow it seemed that the ones who were sufficiently fit were never sufficiently desperate. When the total worthlessness of the body they were to inherit was revealed to them, they invariably balked. In extreme humiliation Lionel had let himself be poked and prodded, like some horse of dubious value, by a succession of coarse men reeking of muscatel—all to no avail. Futile weeks succeeded one another, compounding his impatience as he sat before his closed-circuit scanner, seeing the transposed gorilla come into puberty and enjoy a mate two generations younger than itself.

Finally one dusk, just as he had finished his prune-and-pabulum aspic and was preparing to retire, the butler appeared with still another of the seedy young men he'd been ordered to admit. At the sight of this specimen, a hope long frozen in Lionel's chest began to thaw. Greedily he inspected the gaunt, melancholy figure—trying it on for size, so to speak. The moment they were alone the caller produced an envelope from the pocket of his threadbare jacket.

"My documents, sir," he said in

a sad, defeated voice. "I believe you'll find them in order."

Hastily breaking the seal, Lionel read the application form. Name, Ulysses G. Hackley. Age, 29. Occupation, poet. Appeared in answer to advertisement in the *Friday Review*, had been processed by medical staff and, aside from apparently prolonged malnutrition, found physically adequate.

Lionel glanced up, concealing his excitement. "Well, I suppose I'm satisfied if you are, Hackley. You've, ah, been given a general briefing on the, ah, arrangement?"

The poet's smile grew even sadder. "As I understand it, in exchange for my body I am to be given yours"—"along with all your assets."

"Well, not quite *all* of them," Lionel said with false heartiness. "I thought I'd hold out a million or two to help launch me on my new career. There'll still be a few dozen million left over for yourself. Enough to keep a boy your age quite tidily, I should think."

Hackley surveyed him calmly. "Tell me, Mr. Smythe: if I were to walk out of here right now, would *you* give me a million dollars?"

"Certainly not!" Lionel bristled.

"Then I see no reason why I should give you any such sum either, when you walk out of here. After all, if I'm going to use your body I may as well start using its principles, too."

Lionel couldn't help chuckling at the lad's quick thinking. Sound head on his shoulders, if he had only put it to some better use. It shouldn't be too difficult to out-manuever him, however.

"I think you'll find them somewhat more profitable than a poet's principles."

"Could it be otherwise?" Hackley said bitterly. "In a world deafened by hucksters and Philistines, how can the lone unfettered voice of beauty make itself heard?" He scowled at Lionel. "That's why I've chosen to surrender my mortal shell for your wealth. By doing so, I shall be able to place my collected verse before the public it deserves."

"My advance congratulations," Lionel said dryly. "Be sure to send me a copy so I can autograph it for you."

Hackley gave him a withering look. "Just to forestall any chicanery on your part, I'll want an independent firm of accountants to go over your books before we make the exchange."

Lionel blanched, seeing his ace in the hole exposed. "Why, you young puppy!" He brandished his stout oak cane.

"Come, now. You wouldn't want to do anything that might leave bruises on us."

He subsided, fuming. The whip-persnapper clearly had him by the short hairs. Then Lionel consoled himself by remembering that, no matter how insolvent he might be,

he'd still live to read his own obituary.

It was a long, cruel night. The outside accountants Lionel had been forced to summon were ruthlessly efficient in squelching any financial shenanigans he attempted. Throughout the grueling session he'd watched Hackley gorge himself on the choicest items that the kitchen could prepare. It was the last square meal he'd ever have, of course, but Lionel hoped it wouldn't give him heartburn. By morning, the overworked lab crew had completed arrangements for the transformation. In a daze of exhaustion, Lionel was wheeled to the operating arena and placed beneath the arc lamp where he'd first seen a senile white rat's virility so dramatically restored. He sighed in anticipation—then suddenly sat upright, dislodging his metallic skull cap.

"You *do* like girls?" he asked the poet anxiously.

From the adjacent table, Hackley smiled so forlornly and nostalgically that Lionel was completely reassured.

He lay back, saw Dr. Wasserman's concerned face beyond the ring of bustling scientists, winked at him and closed his eyes. There was a moment of dead silence. Then a blinding flash seared his skull and he blacked out.

Waking seemed instantaneous, with nothing having intervened.

Lionel sat up and faced the grave

assembly, thinking the experiment had failed. Then he belched, healthily and heartily, and the long-lost taste of lobster thermidor was in his nostrils. He held his young, unwrinkled hands out, flexed the supple fingers, swayed dizzily in relief and hopped down from the table, sixty years lighter.

"It worked!" he cried. "Wasserman, do you hear? It worked!"

Wasserman nodded coolly at him, then turned back solicitously to the repulsive old man being helped into his wheel chair.

"Is there anything I can get you, Skipper?" he asked.

As if in some nightmare that he'd finally wakened from, Lionel saw the former mirror image of himself shake his head wearily. The entourage around the wheel chair began moving off and Lionel followed them in confusion. Moving cautiously on his unfamiliar new legs, he fell behind. By the time he got back to the main house Hackley was installed behind Lionel's desk, giving crisp orders on the telephone-

"... get hold of Bennett Cerf, and ask how much he'll take for Random House." He hung up and frowned at Lionel. "Make it quick, Hackley. I'm busy."

Lionel stiffened in outrage. "Now see here, Hackley—"

But the grotesque old man behind the desk shrugged and punched a buzzer. Instantly the butler appeared.

"Toss this crumb out on his ear, will you, Cavendish?"

"A distinct pleasure, sir."

Lionel had never realized Cavendish's strength. It was better than his aim, however, since it wasn't his ear Lionel landed on. He picked himself up as the front door slammed. Turning his pockets inside out, he discovered nothing but an empty match folder. Inside it was inscribed a poem:

*When a rhymester is left with
a broken lyre,*

*In need of protein to stoke his
fire*

*Then perforce he must don
an old boor's torso*

*For the gutter's cruel, but the
grave is more so.*

It was signed with Hackley's initials: UGH. Those were Lionel's precise sentiments.

It was a relentless, dedicated year that followed. The average man in Lionel's somewhat unique position would have lacked his vision. After eighty-nine years' exile in a wasted body, he would have immediately plunged his new physique into all the fleshpots he could find. In his short-range greed, ignoring the financing of such adventures, he would be persistently tantalized by greater wants beyond the range of his bank balance. But Lionel had never been the average man. He wouldn't have made his first million by the age of twenty-nine, had he been. So in finding

himself that same age all over again, but with sixty additional years of shrewdness, the decision had been automatic. He'd worked night and day to amass another fortune, knowing that a year's austerity was a negligible price to pay for a life of unlimited indulgence to follow.

Inadvertently, Hackley had been of immense help to him. Shortly after Lionel had been ushered so uncivilly from his own door, a new Modern Library book came out. It was the collected poetry of Ulysses G. Hackley. (It had no initial sale whatsoever, until financial backing from some mysterious source enabled book dealers to give away a set of the complete works of Krafft-Ebing with each copy purchased; after which it achieved unprecedented success, despite a number of unkind reviews.) By then Lionel had worked his way up to assistant bookkeeper of an automotive parts firm. When it became known to his superiors that he was the eccentric poet Hackley, they philosophically regarded it as good publicity. In their amused condescension toward Lionel they made their fatal mistake. Two weeks later, by a deft manipulation of the books, Lionel had the company in his pocket.

Quickly he merged it with a rival firm, milked its assets to buy still another, and thus produced a bottleneck in one small, strategic part. Detroit was forced to come to Lionel, and his price was a certain

innocent-looking block of stock. Again, thinking they were dealing with a lucky but unbusinesslike artist, the board of directors underestimated Lionel and after that it had been a shoo-in. . . .

Yes, it had been quite a year, Lionel gloated, watching the downtown traffic on Woodward Avenue from his suite high atop the Cadillac Building. Here he was, the thirty-year-old talk of Wall Street and the target of a dozen raging, helpless congressional investigating committees. By a masterstroke of psychology he had become the greatest monopolist of modern times. Not in anything so complex as the automotive industry, however, where he'd begun his original parlay. Instead, completely crossing up his competitors, Lionel had been quietly plowing back his entire capital into cornering the world market on a trivial kitchen product. It was chervil, a herb of interest only to a few random gourmets. But once the news broke that it was in such short supply the housewives of the land, predictably enough, were suddenly frantic for chervil. Cleaning out the last remaining sources of it, they drove its price to an astronomical high. Tomorrow the senate would be voting on a new amendment to the anti-trust statutes—just twenty-four hours too late, Lionel thought smugly.

He flipped the toggle of his intercom box. "Miss Goldenpratt? Bring

me the latest quotations on Chervil, Limited."

A ravishing blonde of tightly packaged proportions swiveled in, a length of ticker tape dangling from her arm.

"Here y'are, Mr. H.," she said huskily.

Lionel took the tape from her, discovering that the price had now leaped to five dollars a gram. A thousand grams in a kilo, he thought lavishly, and approximately a quarter million kilos in his bulging warehouses . . .

"Put me through to my brokers," he told the blonde. "I've decided to sell out and retire."

"Retire, Mr. H.?" The blonde's eyes widened. "That mean I'll have to find a new job?"

"You *got* a new job. You're going to be the hostess on my yacht."

"I like yachts," the blonde confessed shyly.

"I have a hunch I will too," Lionel said. "In fact, I think I'll have a fleet of them."

Along with a fleet of hostesses, he decided. After the monk-like existence of this past year, his clamoring youthful body was now about to have every reward he could arrange for it.

"In fact," Lionel said bluntly, "I see no point for us to wait until I buy that yacht."

"Oh Mr. H.," the blonde breathed, "you put things so poetically. Just like in that book of yours. How can a girl resist?"

They slipped into each other's arms.

"Gloria!"

"Ulysses!"

"Mr. Hackley, sir!"

They turned to face the third voice. It belonged to Lionel's confidential secretary who had burst into the room.

"Smythe Enterprises is flooding the market with a new chervill!" he gasped. "The ladies are wild about it. They say it tastes much subtler than the old kind!"

Lionel leaned against his desk for support. "Get hold of yourself, man," he said shakily. "It's just some cheap synthetic the old bastard dreamed up."

"Precisely, sir! It's the ersatz sawdust they were using in their chain of pseudo-Colonial taverns. They have boxcars of it!" the secretary babbled. "Chervil, Limited has dropped to zero and you're wiped out!"

Reeling, Lionel heard the door slam shut. He turned to the blonde.

"Gloria," he said weakly, "you're all I have left. . . ."

"Get your clammy lunchhooks off me, Buster," the blonde said. "I got other fish to fry." She switched toward the door, gave him a last glance over her milky shoulder. "Don't take any wooden sawdust."

Brutal as the year of youth had been, the interval that followed it was even worse. There was no one mad enough to hire Lionel for any

job at any price. They all seemed to feel, somehow, that if they did they'd lose their shirts to him. For awhile he was kept alive by the charity of a bohemian circle that knew him from the old days, before he besmirched his literary gifts by descending to the sordid world of commerce. But even this slim stopgap was withdrawn when, by daily shaving and other questionable practices, he failed to maintain the appearance, let alone the intellectual orientation of a poet. At last one drizzly evening, rummaging through a garbage can the neighborhood cats had beaten him to, he realized he was finished.

It was a long walk out to the old mansion, and the sight of it, so rich with associations, was punishing indeed. Dashing a tear from his cheek, Lionel resolutely rang the bell. Cavendish appeared, a wicked gleam of recognition in his eyes.

"I, uh, I'd like to see Hack—I mean Smythe," Lionel faltered.

"Mr. Smythe. However, I doubt if master is receiving this late. Whom shall I announce?"

Swallowing the last of his pride, Lionel muttered, "Hackley."

"Hackley?" the butler said blandly. "Oh yes, the capitalist poet. Master is an avid follower of your work. I can't say I share his enthusiasm. Wait here."

The door closed, and Lionel huddled in the rain till Cavendish returned to usher him into the li-

brary. Hackley waited in the wheel chair with an enigmatic smile. Lionel was shocked at the appearance of his former self; it had aged so. Good thing I got out of it in time, he thought automatically, till he remembered the purpose of his visit.

"Could I have my body back?" he said wistfully. "That is, if you're done with it? There's no place else that I can go, and I'd sort of like to end my days in a familiar, uh, outlook."

Hackley craned his head like an arthritic turtle. "The trade would have a certain appeal," he admitted in a rasping, ancient voice, "I confess it's grown somewhat monotonous, being exclusively confined to a life of the mind. What would be your terms?"

"Any terms at all," Lionel blurted, with the impetuosity of youth.

"Hmm. You realize I'd be just as much an outcast of society as you are. That's a considerable sacrifice to make. What could possibly compensate me for it?"

"I'll make you my sole heir," Lionel said desperately. "After all, I can't live too much longer."

Hackley's eyes dropped to his skeletal knees. "That seems an accurate enough prediction," he said dryly. He sighed. "Very well, I'll have a will drawn making you my sole heir. Not to be effective till the date of transfer, naturally."

"Naturally. You wouldn't care to

have mortality hastened by any, ah, outside assistance," Lionel said, calmer now. "Anymore than I should. Therefore, I'll have to insist that the will provides for Hackley's removal from these premises the instant the exchange has taken place. And furthermore, it'll have to stipulate that if Smythe's death occurs from anything other than natural causes, the entire estate will be used to found a Society for the Suppression of Poetry."

Hackley smiled in surrender and pulled the bell rope. The butler materialized.

"Get me my attorneys," he said, "and send for Dr. Wasserman. Oh, and Cavendish—see that the guest suite is arranged for this young man here."

The butler hesitated, then turned to Lionel, bowing. "A distinct pleasure, sir. Apparently the shoe is on the other foot now, eh?"

"You're damn tootin'," Lionel said in savage relish.

At the age of ninety, Lionel Smythe was ready to reenter himself. It looked to be a cheerless homecoming, for under the operating arena's arc lamp his old body lay exposed in all its creaking frailty. The brittle bones moved restlessly as if in distress, and the wrinkled stomach bulged obscenely. There was a film of perspiration

on the forehead, the hands were clenched. It would seem that Lionel's body was in the grip of some strong and painful emotion of Hackley's. Lionel gave it a last glance of affectionate contempt and stretched out on the adjacent table. Dr. Wasserman fitted the metal skull cap on him, making no attempt to be gentle.

"Hurry it up, man!" Hackley gasped, his impatience evidently uncontainable.

Wasserman threw the switch.

There was a blinding midnight laced with lightning, then nothingness.

Lionel woke, and instantly his universe was filled with agony. He clutched his distended belly with his crabbed and withered hands as Wasserman's face loomed anxiously above him.

He tried to speak, to cry out for a stomach pump—for in the mingling tastes that clogged his throat he could distinguish, entree upon entree, the enormous banquet Hackley must have ordered and, somehow, gorged down immediately before the operation.

Drowning in a fiery sea of partridge and parfait, calorie and carbohydrate, Lionel's lips moved in a last appeal for help. But all that came out was a feeble belch, perfumed with the delicate flavor of chervil.



Wright Morris won the 1957 National Book Award for his highly regarded novel, THE FIELD OF VISION. Here, he wins our hearts and warms them mightily with his portrait of a gabby, prying, coffee-cadging mailman who offers unsettling opinions about what news is fit to read. . . .

The Word From Space

by WRIGHT MORRIS

WHAT REASSURED ME WAS HOW normal everything looked. In the house, as in the yard, as in the memorable scenes of my childhood, a stillness reigned that would be followed by the sound of rain puffing dust in the road. But nothing followed. The stillness reigned, but nothing else. A wind that did not blow—it seemed to rise at my back and go out of the room I stood in—made a noise at the window, then scattered the leaves I had piled in the yard. But even that was reassuring. Scattered is how our leaves usually look. They were there, where the wind had blown them, and the rake was there, where I had left it. That becalmed moment, that still point, that sudden dampness on the forehead had just been, as we say, one of those things. Through the window that I faced all seemed right with the world.

I got dressed, then I walked through the house to the carport door, where the cat would be waiting, but pressed against the door was a man who came in like a draft when I yanked it open. A mailman. Not *ours*, not the one we know, but one of those men whom neither wind nor rain, snow nor sleet, will obstruct in the performance of his duty. A little kink in the Budget might do it, but nothing else. This one looked a little small for the size of the bag he had on his back. But he had a mailman's friendly expression, the badge and key chain I've always envied, along with the hook-and-eye shoes a good mailman likes to wear.

"Hi!" he said, "here's your Xmas seals!" and stuffed a letter full of them into my hand. I didn't brighten up at that, so he added, "Only twenty-one days till Xmas" (he pronounced it exx-

© 1958 by Wright Morris; originally titled "The Word from Space"

muss), "ain't that about right?"

"I've not counted them lately," I replied, "but it sounds about right." I could see he was one of these friendly types who would talk your leg off if you gave him a chance. "Well, it's another fine day," I said, and reached for the mail he had put in my box.

"Just wait'll you see that mail," he barked, "and you'll change your mind."

He was right. There were three or four pieces of fourth-class mail, an airmail from Chicago with a new penny in the window, and two first-class appeals for money containing the little books you have to mail back to them.

"You should complain!" he said, although I hadn't had time to. "All you have to do is get it. I got to carry it around." He shifted his pack to the other shoulder, aged before my eyes. "Did you see the latest runaround we got from Headquarters? Holy smoke, you should be a mailman!"

"If you'll excuse me," I said, "I'm just about to make my coffee."

"Coffee!" he barked. "You're making fresh *coff-ee*?" I started to reply, but he put a finger to his lips, blew on it softly. "You know what I told Headquarters?" he whispered. I didn't. "I said, how's about a *coff-ee-break* for the mailman? All this rain, snow, wind, and sleet talk is o-kay, but how's about a coffee-break?"

"What did Headquarters say?"

"What did they *say*? You think they *ever* say? They don't say, you just bellyache to 'em."

All the guilt feelings I have in not having to be a mailman were on his side. "If you'd like just a *little break*," I said, and glanced at my watch. "I make it short in the morning."

"Just so long as it's a *break*," he said, "you know what I mean?" and stepped into the kitchen, dropped his bag with a thud. Our kitchen is a pleasant sunny room in the morning, full of some things that match, and some that don't. One of the things that doesn't match is the cat's food dish, of green plastic. It doesn't match, it's hard to clean, but it's *his* dish. The mailman's eye lit on the dish. "What's that?"

"The cat-dish," I replied.

"The cat's *what*?"

"His dish." He stared at me in the way the cat does when we put down something *we* eat, but he won't. "We have a cat," I said, calmly, "and that's his dish."

"A cat-dish," he replied. "Can you beat it!"

I turned back to the stove and put on the coffee water. To indicate how I felt I put on less water than usual. "I hope you like it black," I said, "I have no cream."

"No cream? Imagine. Well, just so long as it's hot. What I can't stand is lukewarm coffee."

Why didn't I tell him off? I was

bigger than he was. I could even write to his Headquarters and complain about him. But I had the feeling—hard to explain—that he had something on me. I heard him pull up a chair to the table, dust the cat hair from the seat, then take the morning paper and slip off the rubber band. Out the corner of my eye I noticed his big feet hung an inch from the floor. He was small, but I don't mean to say I hadn't seen almost as small mailmen.

This your paper?" he said, opening it up.

"Yup," I said, pointedly, "but I haven't had a chance this morning to look at it."

That didn't faze him. He flicked a thumb on the tip of his tongue, leaving a spot like you find beneath a bandage, then he left his tongue tip between his lips where it would be handy later. "All the news that's fit to print, eh?" he said. "How about that?"

He didn't mean he wanted to know. It was just one of his asides to himself. I glanced at him, and he read the headlines:

MAFIA DOMINATES
CARTING IN CITY

"Who's Maffia?" he asked.

"The Maffia," I said, dusting off what I remembered, "are one of these underworld organizations. They run the gangster world. They got a finger into garbage now, I guess."

"Can you beat it!" he said. "You call that fit to print?" as if I had just printed it.

"There's a lot of dough in garbage these days," I said, "and if there's dough in it, it's news. If there's a lot of dough in it, it's news fit to print."

"Well, I never," he said, and his tongue flicked in and out like a sand viper. "Now what do you think of *that*?" he said. "Now what do you think of that?"

He wasn't asking me, really, but since I was curious I asked him. "What do you think of what?"

"A dog," he said. "A dog in a satellite."

I leaned over his shoulder to see for myself, and there, sure enough, was the original picture of her—Laika, the Russian space dog. The dog was lying in its space compartment, blinking, I suppose, in the light from the flash bulbs. She looked reasonably well pleased.

"That's news for you," I said, "but it's not fit for some people. The SPCA didn't like it a bit."

"Who's the SPCA?"

"I'll admit that surprised me, coming from a mailman. In the line of duty they often have to kick some mutts in the teeth. 'It's a society,' I said, 'for the prevention of cruelty to animals.'"

"Ho, ho!" he laughed. "You don't mean it!"

"What's so funny about it? You've certainly heard of a dog's

life?" He had. "Well," I said, "some dogs lead it."

"In that case," he came back, "what's so cruel about it? No dog-catchers out there in space. I'll bet most dogs love it. The cruelty would be in bringing 'em back—don't you think?"

Putting it to me in the form of a question threw me off. "Faced with the new active leisure," I said, "a dog needs a man. He misses being maltreated. After all, it's a profession."

He let his legs swing beneath the chair as he thought about that. "That coffee ready?"

It was. I poured myself a full cup to make sure I got it, then I poured him what was left. There he sat, on the chair I usually sat on, perfectly at home at my table. He held the paper up between us, just the way I do with my wife.

"You bellyache about Headquarters," I said, "is *this* what Headquarters is paying you to do?"

He glanced up to see what I meant. Saw it clearly and said, "Yup. I'm here from Headquarters." He said that in the friendliest way possible, but it set me back. What did he mean by Headquarters? *Whose* Headquarters?

"Hey, you," he said, "listen to this! Seven billion bucks for an anti-missile missile! Talk about your double talk. How you like that?"

I liked it even less than seeing

him sitting there on my chair, his elbows on my table, drinking my coffee, and reading it to me.

"Chriminentyl!" he yapped. "Would you believe it?"

"Would I believe *what*?"

"What you call fit to print," he said, and slapped his hand on the paper, enjoying the racket. Before I could comment he read aloud:

HOPE TO MATCH RUSSIAN MIGHT
IN FOUR FIVE YEARS

He lowered the paper and said, "You know, that sounds familiar?"

"I should think it would," I said, "just more of the same."

He pushed his mailman's hat back on his head, showing the ridge it had made in his brow. All the high points of his face were shiny, and it seemed to consist of nothing but high points. Nose, chin, the bumps over his eyes, he looked as polished as the head on a penny. His eyes had been closed; they popped open and he cried, "I got it! I got it! The five-year plan!"

"Okay," I said, "what's new about it?"

"They had it," he said. "Now you got it!"

"Not me," I replied, "I don't want it."

"Ho, ho, ho!" he laughed, his head tipped back, and I almost poured my coffee down his throat.

"I have not got it," I said. "We all got it. There's no place in the world that soon won't have it."

We're all trapped. We all got five-year plans. What's so funny about it?"

He suddenly stopped laughing, said, "So the world is trapped. What's a world?"

Sooner or later, in my case usually sooner, that's my luck. I play the good Samaritan, and I end up with a madman in my house. Through the blinds I gazed at the beautiful morning, at the world where everyone seemed trapped, at the fact that there seemed nowhere in the world much news that was fit to print. The morning was lovely, my heart was sad, and I was trapped with a mad mailman in my kitchen.

"A penny for your thoughts, old sport," he said, and I must say it surprised me. I mean the way he put it. The feeling I had that he wanted to know.

"When I read the paper," I said, "or even when I don't and you read it for me, honest to God if I don't think I'll go nuts. Honest to God if I don't really wonder what the hell to do." That was my thought, and I could see it impressed him.

"Why you read the dang paper, old sport?"

"It comes every morning," I replied. He didn't seem to find that odd. No, not a bit.

"Well," he said, "it beats all. There must be *some* good news—why don't somebody print it?"

"Nobody would believe it," I

replied. "If it's good news it's propaganda. If it's so bad you can't bear it, you know it's the truth."

"Holy cow! What a world to live in!"

"You're telling me?" I said, and wheeled on him, spilling some of my coffee.

"Why do you live in it?" he said. Just like that.

"Don't think," I said, "if there was any place to go, I wouldn't go there!" I snapped my fingers. "I'd go there like a shot."

You know what he said to that? "No kidding?"

"No kidding," I said, then added, "chum."

At that point we had a pause of the sort I have described. My forehead was damp, but the room itself seemed cool. I noticed he had gripped the sides of the chair the way a kid does at the dentist, as if the pressure from beneath might pop him out of it. "No kidding, chum," I said, clearing my throat, then I put in for the humor of it, "you got any suggestions?"

"What about a planet?"

That was more humor than I'd expected.

"Okay," I said, "what about it?"

He seemed to think that over. From my point of view, rather than his. "Let me tell you, old sport, there's more planets than you think."

"I don't doubt it," I said, "and I couldn't care less."

"What you think of all this crazy talk about saucers, old sport?"

I didn't like the "old sport," but it wasn't lost on me that he meant it to be friendly.

"I take it you mean flying saucers?" He pumped his head up and down, rocking his hat. It was large for his head and rocked like a teeter-totter on the wings of his ears. "Well," I said, "frankly it's kiddie stuff. Wishful thinking for grownups. Escape fiction for wage slaves. In a world where we're all trapped, it's a trap door into the attic. Ever notice how much the new worlds look like the old ones?"

He drummed his fingernails on the bottom of the chair, making a sound like a cat scratching. "What about it as an idea?" he said. "You know—along the line of science fiction."

"Okay. What about it?"

"Let's say you an' me just pretend," he said, leaning forward, his legs swinging.

"Pretend what?"

"Let's pretend," he said, "we got a little saucer right there in the back yard."

My mouth a little dry, I said, "Okay, go on."

"Let's pretend it's a small-size saucer," he went on, "with just enough room for me an' you on it. No room for you to take along your wife, your cat, stuff like that. There's just barely room for you

to take along yourself." He stopped there, and gave me the look Wise Old Owl used to give Br'er Rabbit. Like Br'er Rabbit I just lay quiet, I didn't give myself away. "Okay, okay," he said, "so far so good. Now what we got is this saucer out there in the yard, and we got four or five minutes, say we make it five, before we take off." Saying that he took from his pocket a large stem-wind watch on a heavy guard chain. "Five minutes," he said, his eye on the second hand, "four minutes and fifty-two seconds, four minutes and forty-eight seconds—"

"Hey!" I said. "You counting from now?"

"Four minutes and thirty-seven seconds," he replied.

"Holy cow!" I said, picking up his lingo, and putting down my coffee cup I ran for the back. I rushed into my study, then just stood there a moment, looking around. This was a game, but like any game, you had to play it seriously. What the devil should I take? I looked around wildly at what I possessed. Books mostly, a few records, machines that made one noise or another, a typewriter, photographs of places and friends.

"Four minutes flat!" I heard him yell, and I lunged for the bookcase, snatched *MOBY DICK*. It felt heavy. I swapped it for Shakespeare in a thin paper edition. Did I want Shakespeare with me in *space*? Was I trapped in

clichés? Was it Dante or Huck Finn I should have at my side on my spatial desert island? Or should it be Doublecrostics, Yoga exercises, or H. P. Lovecraft? From the top of my desk I grabbed the snapshot, no longer candid, of house, cat, and wife; from the drawer the gift pen said to be good for umpteen thousand words. Okay, I would write them. But what would I do with them?

"Three minutes and twenty-seven seconds," he called. He sounded calm. I wanted to yell back at him, but there wasn't time. From a lower drawer, clogged with twenty years of new and foolproof cigarette filters, I selected a pocket microscope, in which I had often seen my own eyelashes, and a slide rule no bigger than a package of gum, made in Japan. In space—where else?—I would finally master it. In the last analysis one can always calculate.

"Two minutes twenty-one seconds," he droned, as time runs out for a man on the gallows. In something of a panic I ran into the bathroom—life began, after all, in the bathroom—and grabbed the newest of the two toothbrushes, the tube of chlorophyll paste, but with something like elation I left the razor in its rack on the wall. At long last I would grow, and need, that beard. Through it would whistle the fumeless zephyrs of outer space.

And aspirin! It made me faint to think I had almost overlooked it. Were there headaches in space? Feeling one coming on, I tapped two out of the bottle, swallowed them.

"One minute forty-five seconds, old sport!"

In the bedroom, the corner closet, back on the shelf with the carton of fuses, I raised a pillow and gazed, wide-eyed, at the cache. Old Bushmills. Brought in tax-free from Shannon, the gift of an old friend. Saved, as I had told him, as I had told myself, as I had told everybody, for what I called a special occasion. Wasn't this it? Perhaps the last special occasion of my life on earth? I took one bottle from the shelf, and slipped it, through an opening in my shirt, into my sleeve. A little heavy at the start; but once we had nipped it, we could jettison the bottle. It would follow us, like a kite's tail, through space. A fitting reminder, in its fashion, of our life on earth.

"Fifty-seven seconds to go."

From a drawer smelling of moth balls I yanked a sweater, then dashed back into the study to take a leather-covered pipe, never smoked. I scooped the pouch full of the tobacco that scented the house like a glowing fruit cake, then turned for a last look around. In what might have been the voice of a train caller he said, "Last call!"

Why? Can you tell me why he put it like that? *Last* call. Did he mean for this world—or the next one? As a man from Space, what new world did he have in mind? There was no news fit to print in this one, but some of the unprintable news was *mine*. I was, in fact, making news, sad as it seemed, at that very moment. If *Life* and *Time* knew about it they would be out there in the yard, waiting for me to take off. Along with other news considered fit to print, tomorrow morning's *Times* would feature mine:

LOCAL MAN LEAVES THIS WORLD
FOR NEW PLANET

Would the news, on that planet, be fit to print?

The closing of a door, the one to the carport, stirred the air throughout the house, and a last faint puff of it seemed cool on my damp forehead. What had happened? Was it pain I felt, or relief?

"Wait!" I yelled, and started to run, but the pocket of my coat caught on the doorknob. It swung me around, and I had to take the coat off to get free. "Wait!" I hollered, and ran through the house to the carport door, yanking it open just as the leaves, in the yard at the back, shot up the way they do from a roaring fire, and in the tops of the trees I heard the whir-

ring of the grackles taking flight. What a sound it was! Like the wind rippling the cloth of a sail.

I didn't move from the door, nor lift my eyes to look at the sky, nor did I need to be told that I had missed the scoop of the year. I came back to the kitchen, where I found a small corner of the paper held down by a saucer. It was the left-hand corner, that declared: "All the News That's Fit to Print." Just below it, in a clear, round hand:

P.S. Hope you don't mind my swiping your paper. Nothing fit to print on the front of it at all, but holy cow, you ever look inside? Three-turret Microscope, \$4.95! Alligator Space Shoes, \$8.49! Hold on till I get me a bigger saucer, then we'll clean up!

The cat came out from where he had been hiding, sniffed around the chair where *he* had been sitting, and I poured what was left of my coffee back into the pot. While it was heating up I heard some of the grackles come back to our trees. Our regular mailman, who is not so big, but not so small as some I have seen, came up the drive and stuffed the mailbox full of fourth-class mail and Christmas seals.

"Another fine day!" he said, seeing me, and I said it sure was.



Ever since 1541, when a peculiar doctor died under peculiar circumstances, our literature has crackled with contracts signed in human blood and bargains reached by the light of brimstone. Here Robert Bloch and a delightfully disreputable Faust find a new kind of balance—on a warm and surprisingly different level—between the intoxication of the impossible wish and its disconcerting morning-after, an eternity in Hell.

That Hell-Bound Train

by ROBERT BLOCH

WHEN MARTIN WAS A LITTLE BOY, his Daddy was a Railroad Man. Daddy never rode the high iron, but he walked the tracks for the CB&Q, and he was proud of his job. And every night when he got drunk, he sang this old song about *That Hell-Bound Train*.

Martin didn't quite remember any of the words, but he couldn't forget the way his Daddy sang them out. And when Daddy made the mistake of getting drunk in the afternoon and got squeezed between a Pennsy tank-car and an AT&SF gondola, Martin sort of wondered why the Brotherhood didn't sing the song at his funeral.

After that, things didn't go so good for Martin, but somehow he always recalled Daddy's song. When Mom up and ran off with a traveling salesman from Keokuk (Daddy must have turned over

in his grave, knowing she'd done such a thing, and with a *passenger*, too!) Martin hummed the tune to himself every night in the Orphan Home. And after Martin himself ran away, he used to whistle the song softly at night in the jungles, after the other bindlestiffs were asleep.

Martin was on the road for four-five years before he realized he wasn't getting anyplace. Of course he'd tried his hand at a lot of things—picking fruit in Oregon, washing dishes in a Montana hash-house, stealing hub-caps in Denver and tires in Oklahoma City—but by the time he'd put in six months on the chain-gang down in Alabama he knew he had no future drifting around this way on his own.

So he tried to get on the railroad like his Daddy had and they

told him that times were bad.

But Martin couldn't keep away from the railroads. Wherever he traveled; he rode the rods; he'd rather hop a freight heading north in sub-zero weather than lift his thumb to hitch a ride with a Cadillac headed for Florida. Whenever he managed to get hold of a can of Sterno, he'd sit there under a nice warm culvert, think about the old days, and often as not he'd hum the song about *That Hell-Bound Train*. That was the train the drunks and the sinners rode—the gambling men and the grifters, the big-time spenders, the skirt-chasers, and all the jolly crew. It would be really fine to take a trip in such good company, but Martin didn't like to think of what happened when that train finally pulled into the Depot Way Down Yonder. He didn't figure on spending eternity stoking boilers in Hell, without even a Company Union to protect him. Still, it would be a lovely ride. If there was *such* a thing as a Hell-Bound Train. Which, of course, there wasn't.

At least Martin didn't *think* there was, until that evening when he found himself walking the tracks heading south, just outside of Appleton Junction. The night was cold and dark, the way November nights are in the Fox River Valley, and he knew he'd have to work his way down to New Orleans for the winter, or

maybe even Texas. Somehow he didn't much feel like going, even though he'd heard tell that a lot of those Texas automobiles had solid gold hub-caps.

No sir, he just wasn't cut out for petty larceny. It was worse than a sin—it was unprofitable, too. Bad enough to do the Devil's work, but then to get such miserable pay on top of it! Maybe he'd better let the Salvation Army convert him.

Martin trudged along humming Daddy's song, waiting for a rattler to pull out of the Junction behind him. He'd have to catch it—there was nothing else for him to do.

But the first train to come along came from the other direction, roaring towards him along the track from the south.

Martin peered ahead, but his eyes couldn't match his ears, and so far all he could recognize was the sound. It *was* a train, though; he felt the steel shudder and sing beneath his feet.

And yet, how could it be? The next station south was Neenah-Menasha, and there was nothing due out of there for hours.

The clouds were thick overhead, and the field-mists rolled like a cold fog in a November midnight. Even so, Martin should have been able to see the headlight as the train rushed on. But there was only the whistle, screaming out of the black throat of the night. Martin could recog-

nize the equipment of just about any locomotive ever built, but he'd never heard a whistle that sounded like this one. It wasn't signalling; it was screaming like a lost soul.

He stepped to one side, for the train was almost on top of him now. And suddenly there it was, looming along the tracks and grinding to a stop in less time than he'd believed possible. The wheels hadn't been oiled, because they screamed too, screamed like the damned. But the train slid to a halt and the screams died away into a series of low, groaning sounds, and Martin looked up and saw that this was a passenger train. It was big and black, without a single light shining in the engine cab or any of the long string of cars; Martin couldn't read any lettering on the sides, but he was pretty sure this train didn't belong on the Northwestern Road.

He was even more sure when he saw the man clamber down out of the forward car. There was something wrong about the way he walked, as though one of his feet dragged, and about the lantern he carried. The lantern was dark, and the man held it up to his mouth and blew, and instantly it glowed redly. You don't have to be a member of the Railway Brotherhood to know that this is a mighty peculiar way of lighting a lantern.

As the figure approached, Martin recognized the conductor's cap perched on his head, and this made him feel a little better for a moment—until he noticed that it was worn a bit too high, as though there might be something sticking up on the forehead underneath it.

Still, Martin knew his manners, and when the man smiled at him, he said, "Good evening, Mr. Conductor."

"Good evening, Martin."

"How did you know my name?"

The man shrugged. "How did you know I was the Conductor?"

"You *are*, aren't you?"

"To you, yes. Although other people, in other walks of life, may recognize me in different roles. For instance, you ought to see what I look like to the folks out in Hollywood." The man grinned. "I travel a great deal," he explained.

"What brings you here?" Martin asked.

"Why, you ought to know the answer to that, Martin. I came because you needed me. Tonight, I suddenly realized you were backsliding. Thinking of joining the Salvation Army, weren't you?"

"Well—" Martin hesitated.

"Don't be ashamed. To err is human, as somebody-or-other-once said. *Reader's Digest*, wasn't it? Never mind. The point is, I felt you needed me. So I switched over and came your way."

"What for?"

"Why, to offer you a ride, of course. Isn't it better to travel comfortably by train than to march along the cold streets behind a Salvation Army band? Hard on the feet, they tell me, and even harder on the ear-drums."

"I'm not sure I'd care to ride your train, sir," Martin said. "Considering where I'm likely to end up."

"Ah, yes. The old argument." The Conductor sighed. "I suppose you'd prefer some sort of bargain, is that it?"

"Exactly," Martin answered.

"Well, I'm afraid I'm all through with that sort of thing. There's no shortage of prospective passengers any more. Why should I offer you any special inducements?"

"You must want me, or else you wouldn't have bothered to go out of your way to find me."

The Conductor sighed again. "There you have a point. Pride was always my besetting weakness, I admit. And somehow I'd hate to lose you to the competition, after thinking of you as my own all these years." He hesitated. "Yes, I'm prepared to deal with you on your own terms, if you insist."

"The terms?" Martin asked.

Standard proposition. Anything you want."

"Ah," said Martin.

"But I warn you in advance,

there'll be no tricks. I'll grant you any wish you can name—but in return, you must promise to ride the train when the time comes."

"Suppose it never comes?"

"It will."

"Suppose I've got the kind of a wish that will keep me off forever?"

"There is no such wish."

"Don't be too sure."

"Let me worry about that," the Conductor told him. "No matter what you have in mind, I warn you that I'll collect in the end. And there'll be none of this last-minute hocus-pocus, either. No last-hour repentances, no blonde *frauleins* or fancy lawyers showing up to get you off. I offer a clean deal. That is to say, you'll get what you want, and I'll get what I want."

"I've heard you trick people. They say you're worse than a used-car salesman."

"Now, wait a minute—"

"I apologize," Martin said, hastily. "But it is supposed to be a fact that you can't be trusted."

"I admit it. On the other hand, you seem to think you have found a way out."

"A sure-fire proposition."

"Sure-fire? Very funny!" The man began to chuckle, then halted. "But we waste valuable time, Martin. Let's get down to cases. What do you want from me?"

Martin took a deep breath. "I

want to be able to stop Time."

"Right now?"

"No. Not yet. And not for everybody. I realize that would be impossible, of course. But I want to be able to stop Time for myself. Just once, in the future. Whenever I get to a point where I know I'm happy and contented, that's where I'd like to stop. So I can just keep on being happy forever."

"That's quite a proposition," the Conductor mused. "I've got to admit I've never heard anything just like it before—and believe me, I've listened to some lulus in my day." He grinned at Martin. "You've really been thinking about this, haven't you?"

"For years," Martin admitted. Then he coughed. "Well, what do you say?"

"It's not impossible, in terms of your own *subjective* time-sense," the Conductor murmured. "Yes, I think it could be arranged."

"But I mean *really* to stop. Not for me just to *imagine* it."

"I understand. And it can be done."

"Then you'll agree?"

"Why not? I promised you, didn't I? Give me your hand."

Martin hesitated. "Will it hurt very much? I mean, I don't like the sight of blood, and—"

"Nonsense! You've been listening to a lot of poppycock. We already have made our bargain, my boy. I merely intend to put something into your hand. The ways

and means of fulfilling your wish. After all, there's no telling at just what moment you may decide to exercise the agreement, and I can't drop everything and come running. So it's better if you can regulate matters for yourself."

"You're going to give me a Time-stopper?"

"That's the general idea. As soon as I can decide what would be practical." The Conductor hesitated. "Ah, the very thing! Here, take my watch."

He pulled it out of his vest-pocket; a railroad watch in a silver case. He opened the back and made a delicate adjustment; Martin tried to see just exactly what he was doing, but the fingers moved in a blinding blur.

"There we are," the Conductor smiled. "It's all set, now. When you finally decide where you'd like to call a halt, merely turn the stem in reverse and unwind the watch until it stops. When it stops, Time stops, for you. Simple enough?" And the Conductor dropped the watch into Martin's hand.

The young man closed his fingers tightly around the case. "That's all there is to it, eh?"

"Absolutely. But remember—you can stop the watch only once. So you'd better make sure that you're satisfied with the moment you choose to prolong. I caution you in all fairness; make very certain of your choice."

"I will," Martin grinned. "And since you've been so fair about it, I'll be fair, too. There's one thing you seem to have forgotten. It doesn't really matter *what* moment I choose. Because once I stop Time for myself, that means I stay where I am forever. I'll never have to get any older. And if I don't get any older, I'll never die. And if I never die, then I'll never have to take a ride on your train."

The Conductor turned away. His shoulders shook convulsively, and he may have been crying. "And you said I was worse than a used-car salesman," he gasped, in a strangled voice.

Then he wandered off into the fog, and the train-whistle gave an impatient shriek, and all at once it was moving swiftly down the track, rumbling out of sight in the darkness.

Martin stood there, blinking down at the silver watch in his hand. If it wasn't that he could actually see it and feel it there, and if he couldn't smell that peculiar odor, he might have thought he'd imagined the whole thing from start to finish—train, Conductor, bargain, and all.

But he had the watch, and he could recognize the scent left by the train as it departed, even though there aren't many locomotives around that use sulphur and brimstone as fuel.

And he had no doubts about his

bargain. That's what came of thinking things through to a logical conclusion. Some fools would have settled for wealth, or power, or Kim Novak. Daddy might have sold out for a fifth of whiskey.

Martin knew that he'd made a better deal. Better? It was fool-proof. All he needed to do now was choose his moment.

He put the watch in his pocket and started back down the railroad track. He hadn't really had a destination in mind before, but he did now. He was going to find a moment of happiness. . . .

Now young Martin wasn't altogether a ninny. He realized perfectly well that happiness is a relative thing; there are conditions and degrees of contentment, and they vary with one's lot in life. As a hobo, he was often satisfied with a warm handout, a double-length bench in the park, or a can of Sterno made in 1957 (a vintage year). Many a time he had reached a state of momentary bliss through such simple agencies, but he was aware that there were better things. Martin determined to seek them out.

Within two days he was in the great city of Chicago. Quite naturally, he drifted over to West Madison Street, and there he took steps to elevate his role in life. He became a city bum, a pan-handler, a moocher. Within a week he had risen to the point where

happiness was a meal in a regular one-arm luncheon joint, a two-bit flop on a real army cot in a real flophouse, and a full fifth of muscatel.

There was a night, after enjoying all three of these luxuries to the full, when Martin thought of unwinding his watch at the pinnacle of intoxication. But he also thought of the faces of the honest johns he'd braced for a handout today. Sure, they were squares, but they were prosperous. They wore good clothes, held good jobs, drove nice cars. And for them, happiness was even more ecstatic—they ate dinner in fine hotels, they slept on innerspring mattresses, they drank blended whiskey.

Squares or no, they had something there. Martin fingered his watch, put aside the temptation to hock it for another bottle of muscatel, and went to sleep determined to get himself a job and improve his happiness-quotient.

When he awoke he had a hang-over, but the determination was still with him. Before the month was out Martin was working for a general contractor over on the South Side, at one of the big rehabilitation projects. He hated the grind, but the pay was good, and pretty soon he got himself a one-room apartment out on Blue Island Avenue. He was accustomed to eating in decent restaurants now, and he bought himself

a comfortable bed, and every Saturday night he went down to the corner tavern. It was all very pleasant, but—

The foreman liked his work and promised him a raise in a month. If he waited around, the raise would mean that he could afford a second-hand car. With a car, he could even start picking up a girl for a date now and then. Other fellows on the job did, and they seemed pretty happy.

So Martin kept on working, and the raise came through and the car came through and pretty soon a couple of girls came through.

The first time it happened, he wanted to unwind his watch immediately. Until he got to thinking about what some of the older men always said. There was a guy named Charlie, for example, who worked alongside him on the hoist. "When you're young and don't know the score, maybe you get a kick out of running around with those pigs. But after a while, you want something better. A nice girl of your own. That's the ticket."

Martin felt he owed it to himself to find out. If he didn't like it better, he could always go back to what he had.

Almost six months went by before Martin met Lillian Gillis. By that time he'd had another promotion and was working inside, in the office. They made him go to night school to learn how to do

simple book-keeping, but it meant another fifteen bucks extra a week, and it was nicer working indoors.

And Lillian *was* a lot of fun. When she told him she'd marry him, Martin was almost sure that the time was now. Except that she was sort of—well, she was a *nice* girl, and she said they'd have to wait until they were married. Of course, Martin couldn't expect to marry her until he had a little more money saved up, and another raise would help, too.

That took a year. Martin was patient, because he knew it was going to be worth it. Every time he had any doubts, he took out his watch and looked at it. But he never showed it to Lillian, or anybody else. Most of the other men wore expensive wristwatches and the old silver railroad watch looked just a little cheap.

Martin smiled as he gazed at the stem. Just a few twists and he'd have something none of these other poor working slobs would ever have. Permanent satisfaction, with his blushing bride—

Only getting married turned out to be just the beginning. Sure, it was wonderful, but Lillian told him how much better things would be if they could move into a new place and fix it up. Martin wanted decent furniture, a TV set, a nice car.

So he started taking night courses and got a promotion to

the front office. With the baby coming, he wanted to stick around and see his son arrive. And when it came, he realized he'd have to wait until it got a little older, started to walk and talk and develop a personality of its own.

About this time the company sent him out on the road as a trouble-shooter on some of those other jobs, and now he *was* eating at those good hotels, living high on the hog and the expense-account. More than once he was tempted to unwind his watch. This was the good life. . . . Of course, it would be even better if he just didn't have to *work*. Sooner or later, if he could cut in on one of the company deals, he could make a pile and retire. Then everything would be ideal.

It happened, but it took time. Martin's son was going to high school before he really got up there into the chips. Martin got a strong hunch that it was now or never, because he wasn't exactly a kid any more.

But right about then he met Sherry Westcott, and she didn't seem to think he was middle-aged at all, in spite of the way he was losing hair and adding stomach. She taught him that a *toupee* could cover the bald spot and a cummerbund could cover the pot-gut. In fact, she taught him quite a lot and he so enjoyed learning that he actually took out his watch and prepared to unwind it.

Unfortunately, he chose the very moment that the private detectives broke down the door of the hotel room, and then there was a long stretch of time when Martin was so busy fighting the divorce action that he couldn't honestly say he was enjoying any given moment.

When he made the final settlement with Lil he was broke again, and Sherry didn't seem to think he was so young, after all. So he squared his shoulders and went back to work.

He made his pile, eventually, but it took longer this time, and there wasn't much chance to have fun along the way. The fancy dames in the fancy cocktail lounges didn't seem to interest him any more, and neither did the liquor. Besides, the Doc had warned him off that.

But there were other pleasures for a rich man to investigate. Travel, for instance—and not riding the rods from one hick burg to another, either. Martin went around the world by plane and luxury liner. For a while it seemed as though he would find his moment after all, visiting the Taj Mahal by moonlight. Martin pulled out the battered old watch-case, and got ready to unwind it. Nobody else was there to watch him—

And that's why he hesitated. Sure, this was an enjoyable moment, but he was alone. Lil

and the kid were gone, Sherry was gone, and somehow he'd never had time to make any friends. Maybe if he found new congenial people, he'd have the ultimate happiness. That must be the answer—it wasn't just money or power or sex or seeing beautiful things. The real satisfaction lay in friendship.

So on the boat trip home, Martin tried to strike up a few acquaintances at the ship's bar. But all these people were much younger, and Martin had nothing in common with them. Also they wanted to dance and drink, and Martin wasn't in condition to appreciate such pastimes. Nevertheless, he tried.

Perhaps that's why he had the little accident the day before they docked in San Francisco. "Little accident" was the ship's doctor's way of describing it, but Martin noticed he looked very grave when he told him to stay in bed, and he'd called an ambulance to meet the liner at the dock and take the patient right to the hospital.

At the hospital, all the expensive treatment and the expensive smiles and the expensive words didn't fool Martin any. He was an old man with a bad heart, and they thought he was going to die.

But he could fool them. He still had the watch. He found it in his coat when he put on his clothes and sneaked out of the hospital.

He didn't have to die. He could cheat death with a single gesture—and he intended to do it as a free man, out there under a free sky.

That was the real secret of happiness. He understood it now. Not even friendship meant as much as freedom. This was the best thing of all—to be free of friends or family or the furies of the flesh.

Martin walked slowly beside the embankment under the night sky. Come to think of it, he was just about back where he'd started, so many years ago. But the moment was good, good enough to prolong forever. Once a bum, always a bum.

He smiled as he thought about it, and then the smile twisted sharply and suddenly, like the pain twisting sharply and suddenly in his chest. The world began to spin and he fell down on the side of the embankment.

He couldn't see very well, but he was still conscious, and he knew what had happened. Another stroke, and a bad one. Maybe this was it. Except that he wouldn't be a fool any longer. He wouldn't wait to see what was still around the corner.

Right now was his chance to use his power and save his life. And he was going to do it. He could still move, nothing could stop him.

He groped in his pocket and

pulled out the old silver watch, fumbling with the stem. A few twists and he'd cheat death, he'd never have to ride that Hell-Bound Train. He could go on forever.

Forever.

Martin had never really considered the word before. To go on forever—but *how*? Did he *want* to go on forever, like this; a sick old man, lying helplessly here in the grass?

No. He couldn't do it. He wouldn't do it. And suddenly he wanted very much to cry, because he knew that somewhere along the line he'd outsmarted himself. And now it was too late. His eyes dimmed, there was a roaring in his ears . . .

He recognized the roaring, of course, and he wasn't at all surprised to see the train come rushing out of the fog up there on the embankment. He wasn't surprised when it stopped, either, or when the Conductor climbed off and walked slowly towards him.

The Conductor hadn't changed a bit. Even his grin was still the same.

"Hello, Martin," he said. "All aboard."

"I know," Martin whispered. "But you'll have to carry me. I can't walk. I'm not even really talking any more, am I?"

"Yes you are," the Conductor said. "I can hear you fine. And you can walk, too." He leaned

down and placed his hand on Martin's chest. There was a moment of icy numbness, and then, sure enough, Martin could walk after all.

He got up and followed the Conductor along the slope, moving to the side of the train.

"In here?" he asked.

"No, the next car," the Conductor murmured. "I guess you're entitled to ride Pullman. After all, you're quite a successful man. You've tasted the joys of wealth and position and prestige. You've known the pleasures of marriage and fatherhood. You've sampled the delights of dining and drinking and debauchery, too, and you travelled high, wide and handsome. So let's not have any last-minute recriminations."

"All right," Martin sighed. "I can't blame you for my mistakes. On the other hand, you can't take credit for what happened, either. I worked for everything I got. I did it all on my own. I didn't even need your watch."

"So you didn't," the Conductor said, smiling. "But would you mind giving it back to me now?"

"Need it for the next sucker, eh?" Martin muttered.

"Perhaps."

Something about the way he said it made Martin look up. He tried to see the Conductor's eyes, but the brim of his cap cast a shadow. So Martin looked down at the watch instead.

"Tell me something," he said, softly. "If I give you the watch, what will you do with it?"

"Why, throw it into the ditch," the Conductor told him. "That's all I'll do with it." And he held out his hand.

"What if somebody comes along and finds it? And twists the stem backwards, and stops Time?"

"Nobody would do that," the Conductor murmured. "Even if they knew."

"You mean, it was all a trick? This is only an ordinary, cheap watch?"

"I didn't say that," whispered the Conductor. "I only said that no one has ever twisted the stem backwards. They've all been like you, Martin—looking ahead to find that perfect happiness. Waiting for the moment that never comes."

The Conductor held out his hand again.

Martin sighed and shook his head. "You cheated me after all."

"You cheated yourself, Martin. And now you're going to ride that Hell-Bound Train."

He pushed Martin up the steps and into the car ahead. As he entered, the train began to move and the whistle screamed. And Martin stood there in the swaying Pullman, gazing down the aisle at the other passengers. He could see them sitting there, and somehow it didn't seem strange at all.

Here they were; the drunks and

the sinners, the gambling men and the grifters, the big-time spenders, the skirt-chasers, and all the jolly crew. They knew where they were going, of course, but they didn't seem to give a damn. The blinds were drawn on the windows, yet it was light inside, and they were all living it up—singing and passing the bottle and roaring with laughter, throwing the dice and telling their jokes and bragging their big brags, just the way Daddy used to sing about them in the old song.

"Mighty nice traveling companions," Martin said. "Why, I've never seen such a pleasant bunch of people. I mean, they seem to be really enjoying themselves!"

The Conductor shrugged. "I'm afraid things won't be quite so jazzy when we pull into that Depot Way Down Yonder."

For the third time, he held out his hand. "Now, before you sit down, if you'll just give me that watch. A bargain's a bargain—"

Martin smiled. "A bargain's a bargain," he echoed. "I agreed to ride your train if I could stop

Time when I found the right moment of happiness. And I think I'm about as happy right here as I've ever been."

Very slowly, Martin took hold of the silver watch-stem.

"No!" gasped the Conductor. "No!"

But the watch-stem turned.

"Do you realize what you've done?" the Conductor yelled. "Now we'll never reach the Depot! We'll just go on riding, all of us—forever!"

Martin grinned. "I know," he said. "But the fun is in the trip, not the destination. You taught me that. And I'm looking forward to a wonderful trip. Look, maybe I can even help. If you were to find me another one of those caps, now, and let me keep this watch—"

And that's the way it finally worked out. Wearing his cap and carrying his battered old silver watch, there's no happier person in or out of this world—now and forever—than Martin. Martin, the new Brakeman on That Hellbound Train.





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